

**CREDIT MANAGEMENT OF NEPAL INDUSTRIAL  
AND COMMERCIAL BANK LIMITED**

**A Thesis**

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# **RECOMMENDATION**

This is to certify that the thesis

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and found the thesis to be the original work of the student and written according to  
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## **ABBREVIATIONS**

ABBS	:	Any Branch Banking System
ALCO	:	Asset Liability Committee
ARM	:	Assistant Relationship Manager
ATM	:	Automated Teller Machine
BM	:	Branch Manager
BMCC	:	Board Management and Credit Committee
CEO	:	Chief Executive Officer
CIB	:	Credit Information Bureau
COO	:	Chief Operating Officer
CPG	:	Credit Policy Document
CRR	:	Cash Reserve Ratio
CST	:	Credit Sales Team
CSU	:	Credit Sales Unit
EPS	:	Earning Per Share
FDR	:	Fixed Deposit Receipt
FY	:	Fiscal Year
HAC	:	Head Audit Compliance
HBB	:	Head Business Banking
HMG	:	His Majesty Government
IBO	:	In-charge Back Office
LC	:	Letter of Credit
MANCOM	:	Management Committee
MC-BB	:	Manager Credit Business Banking
MC-CB	:	Manager Credit Consumer Banking
MTF	:	Manager Treasury & Finance
MVPS	:	Market Value per Share
NICBL	:	Nepal Industrial & Commercial Bank Ltd
NIDC	:	Nepal Industrial Development Corporation
NPA	:	Non Performing Assets
NPAT	:	Net Profit after Tax
NPL	:	Non Performing Loan

NRB	:	Nepal Rastra Bank
OCS	:	Officer Customer Service
OM	:	Operation Manager
OTF	:	Officer Trade Finance
P/E ratio	:	Price Earning Ratio
POS	:	Point of Sale
RA	:	Risk Assets
RBB	:	Rastriya Banijya Bank
RM	:	Relationship Manager
SLR	:	Statutory Liquidity Ratio
TA	:	Total Assets

# **CHAPTER - I**

## **INTRODUCTION**

### **1.1 Background of the Study**

The source of finance is the most essential element for the establishment and operation of any profit and not profits institutions. Profit oriented institutions usually obtain these sources through ownership capital, public capital through the issues of shares, and through financial institutions such as banks, in the form of credits, overdrafts etc. It is during these stages for the establishment and operations of any organization, the role of banks come into effect in providing these sources, in the form of credit, overdraft and other related services.

Nepal is a developing country. Developing countries face lot of problems for its economic development. Nepal has to make expansion in financial sector. Financial market is very important for the economic growth of the country (Economic Survey, 2004/05 : 2). The pace of development of the country is largely depends upon the economic activities. Economic activities are guided by finance. Financial institutions provide capital to develop trade, industry and business. Bank, finance companies, co-operative societies, insurance companies, stock exchanges helps in the economic development of the country.

Banks are the major institutions in financing. Bank involves in a process of collecting scattered money and to help its mobilization in different sectors according to the need of customers. Bank helps to develop saving habit of people, which in-turns to make other people to invest for their business banking loan helps to invest in industrial sector, commercial sector, production sector, trade and commerce. Bank also helps to develop international business by initiating as a mediator on export and import. This way banks help to strengthen the national development.

Banking is one of the most heavily regulated businesses in the world. Banks are among the most important financial institutions in the economy. They are the principal source of credit (loan-able funds) for millions of individuals and families and for many units of governments. Moreover, bank often act as a major source of credit to small local business ranging from grocery stores to automobile dealers for their stock. Banks are among the

most important sources of short-term working capital for business and have become increasingly active in recent years in making long-term business loans for new plant and equipment.

Banks are those financial institutions that offer the widest range of financial services especially credit, savings, payment services and perform the widest range of financial functions of any business firm in the economy. The most important functions are; lending and investing money (the credit function), making payments on behalf of customers for their purchase of goods and services (the payments function), managing financial assets and real property for customers (the cash management, risk and trust functions) and assisting customers in investing and raising funds (through the brokerage, investment banking, and saving functions).

Lending is the most important function of a commercial bank. For lending procedure bank has to make some banking practices such as transferring property in bank's name. The transfer is temporarily made for a loan price and interest. Lending money is nowadays becoming a main resource of revenue to the bank and also involves high risk too. Bank will not provide a loan unless it has sufficient resources to the borrower that will be needed in case of future recovery.

Today no banker can survive for long run without proper standing of economy and no pace ahead without proper banking system. Moreover, the ability of banks to gather and analyze financial information has given rise to another review of why banks exist in modern society. Most borrowers and depositors prefer to keep their financial records confidential, shielded especially from competitors. Banks are able to fulfill this need by offering high liquidity in the deposit they sell. More people believe that banks play only a narrow role in the country-taking deposit and making loans. The modern bank has to adopt a new role in order to remain competitive and responsive to public need.

Banks are expected to support their local communities with an adequate supply of credit for all legitimate business and consumer needs to price that credit reasonably in line with competitively determined interest rates. Bank loans support the growth of new businesses and jobs within the banks' trade territory and promote economic vitality.

This way bank plays an important part in the development of trade, commerce and industry. Today no banker can survive for long run without proper standing of economy and economy can not pace ahead without proper banking system built.

### **1.1.1 Understanding of Credit Management**

The credit policy of the firm provides the framework to determine whether or not to extend credit and how much credit to extend. The credit policy decision of a bank has two broad dimensions; credit standard and credit analysis. A firm has to establish and use standards in making credit decision, develop appropriate sources of credit information and methods of credit analysis.

Credit management strongly recommends analyzing and managing the credit risks. Credit risk is defined as the possibility that a borrower will fail to meet its obligations in accordance with the agreed terms and conditions. Credit risk is not restricted to lending activities only but includes off balance sheet and inters bank exposures. The goal of credit risk management is to maximize a bank's risk adjusted rate of return by maintaining the credit risk exposure within acceptable parameters. For most banks, loan are the largest and most obvious source of credit risk, however other sources of credit risk exist throughout the activities of a bank, including in the banking books and both on and off balance sheet. Banks are increasingly facing credit risk in various financial instruments other than land including acceptance; inter bank transactions, trade financing, foreign exchange transaction, guarantees and the settlement of transactions.

### **1.1.2 Brief Introduction of NIC Bank**

Nepal Industrial & Commercial Bank Ltd. (NIC Bank) was incorporated on 30<sup>th</sup> May 1997 and commenced business on 21<sup>st</sup> July 1998. It is the first bank in the country to have the largest paid-up capital of Rs. 500 million. The Bank was promoted by some of the most renowned business houses in the country lead by Vishal Group along with Rastriya Banijya Bank (*Annual Report of NIC Bank; 2007/2008*).

Within 10 years of commencement of business the bank opened 25 branches. 9 in Kathmandu and 1 each in Biratnagar, Birgunj, Janakpur, Dharan, Birtamod, Pokhara, Nepalgunj, Damak, Butwal, Surkhet, Lahan, Gaighat, Malangawa, Dhanghdi, Mahendranagar, Narayangaarh.

The bank is the first commercial bank in Nepal to be ISO 9001:2000 certified for Quality Management System. Furthermore, NIC Bank became the first bank in Nepal to provide a line of credit by International Finance Corporation (IFC). The bank has also been awarded the 'Bank of Year 2007- Nepal' by the world- renowned financial publication of The Financial Times, UK- the Banker.

NIC Bank's strategy going forward is to be cautiously aggressive in its target market, mainly through selective cherry picking in the corporate sector, non-credit risk institutional business, small business lending, consumer lending and transaction banking.

## **1.2 Focus of the Study**

Banking plays a significant role in the development of an economy. It provides an effective payments and credit system, which facilitates the channeling of funds from the surplus spending units (savers) to the deficit spending units (investors) in the economy. The basic task of the financial institutions is to mobilize the savings of the community and ensure efficient allocation of these savings to high yielding investment projects to offer attractive and secured returns to the different sectors of the economy according to plan priorities of the country, on the other. This process of the financial institutions gives rise to the money and other financial assets, which therefore have a central place in the development process of the economy. The created assets provide vital links between savings, investments and income.

Banks are the most important and essential financial institutions in any nation. Banks are differentiated from other financial institutions, as they can't create credit though they accept deposits, but the banks do so. An ordinary banking business consists of changing cash for bank deposits and bank deposits for cash; transferring bank deposits from one person or corporation to another; giving bank deposits in exchange for bills of exchange, government bonds, the secured or unsecured promises of businessmen to repay etc. However, during the course of its transactions, banks are facing credit risk regarding their investments. The main difficulty in the banking sector is the increasing non-performing assets and as a result they make huge provisions for it. For most banks, loans are the largest and most obvious source of credit risk; however, other sources of credit risk exist throughout the activities of a bank.

Banks should establish overall credit limits at the level of individual borrowers and counter parties, and groups of connected counter parties that aggregate in a comparable and meaningful manner with different types of exposures, both in the banking and trading book and on and off the balance sheet. The credit risk strategy should give recognition to the goals of credit quality, earnings and growth. Every bank, regardless of size, is in business to be profitable and, consequently, must determine the acceptable risk/reward trade-off for its activities, factoring in the cost of capital. A bank's board of directors should approve the bank's strategy for selecting risks and maximizing profits. The board should periodically review the financial results of the bank and, based on these results, determine if changes need to be made to the strategy. The board must also determine that the bank's capital level is adequate for the risks assumed throughout the entire organization.

Therefore, the strategy will need to take into account the cyclical aspects of any economy and the resulting shifts in the composition and quality of the overall credit portfolio. Although the strategy should be periodically assessed and amended, it should be viable in the long run and through various economic cycles.

### **1.3 Statement of the Problems**

Before the inception of joint venture and other private owned commercial banks, the government banks were in operation namely Nepal Bank Ltd and Rastriya Banijya Bank. Due to the economic growth, liberalization and privatization policy of government, many banks came into existence from the private sector. The private owned commercial banks with the help of their quality and prompt services are becoming an indispensable part of the economy of Nepal. The evolution of the commercial bank shows a good sign of economy on one side but on other side due to such growth in number of banks and financial companies in a small economy, there might be an unhealthy competition between them.

In the present context, the major concern of most of the banks is regarding their NPA. As per NRB, the NPAs hover around 29 percent in the banking sector. Although most of the commercial banks increase their profit and market share, the NPA of the banks has been increasing and thus it has created problems to the banks. It has become a burden to the banks and as per NRB rules, banks make provisions for such bad loans accordingly. Banks are increasingly facing credit risk (or counter party risk) in various financial

instruments other than loans, including acceptances, inter bank transactions, financial futures, swaps, bonds, equities, options and in the extension of commitments and guarantees, and the settlement of transactions. Most major banks problems have been explicitly or indirectly caused by weakness in credit management. Severe credit losses in a banking system usually reflect simultaneous problems in several areas, such as concentrations, failures of due diligence and inadequate monitoring. Therefore, the banks should be very careful in making investments decisions and further should be able to cope with the changing economy and business environment (*NRB Directives Manual; 2001*).

#### **1.4 Objectives of the Study**

The objectives of the study can be summarized as follow:

- (i) To study the loan and advances, profitability and deposit position of the NIC bank.
- (ii) To analyze the relationship between the variable of measure the credit performance.
- (iii) To analyze the growth and trend of deposits, loan and advances and net profit.
- (iv) To evaluate the credit management and its policies.

#### **1.5 Research Questions**

The study here is mostly concentrated within the credit management of NIC Bank Ltd and is focused mainly in the effectiveness of its credit management. It mainly focuses on the following aspects:

- (i) Whether the NIC bank has maximum or minimum liquidity?
- (ii) What is the volume of contribution made by NIC bank in credit and advance?
- (iii) How can maximize the profit and minimize the credit risks?
- (iv) What is the deposit collection and utilization trend of NIC bank?

#### **1.6 Significance of the Study**

Commercial banks in developing countries like Nepal have the greatest responsibility towards the economic development of the country. “In the present day world in the developed and developing money economies, the vital processes of production and consumption are significantly affected by the aggregate money supply consisting of the currency, demand and time deposits with banks” (*Vaish;1989*). In modern times, since

credit or bank money constitutes bulk of the economy's aggregate money supply, it mostly changes the volume of bank money or credit rather than changes in the total supply of the high-powered money issued by the reserves held by banks against their deposit liabilities that account for changes in the aggregate money supply. Gone are the old days when commercial banks were regarded as merely purveyors of money. They are today not merely purveyors of money but are also the creators or manufacturers of money in the system. It is the bank that set the tempo of the aggregate economic activity in the system. The main goal of the bank as a commercial organization is to maximize the surplus by the efficient use of its funds and resources. In spite of being a commercial institution, it too has a responsibility/obligation to provide social service oriented contribution for the socio-economic upliftment of the country by providing specially considered loans and advances towards less privileged sector. In the present scenario, the banks are having difficulties in making investments, as the insurgency and government policy are unfavorable to the industries. As a result, the NPA of the banks is increasing every year.

The significance of this thesis is to help shareholders, equity investors and other creditors to identify the productivity of their funds in NICBL. Likewise other financial agencies e.g. stock exchange & stockbrokers are also interested in the performance of bank, as it has been listed in the stock exchange market. Besides these, the study will also help the management of the banks to analyze the effectiveness of its credit management and its policies of the bank in comparison to its competitors. The study is significantly helpful to the government and central bank to formulate the new credit policy, as there are certain loopholes as a result of which the non-performing asset has been regarded as the main problem of the commercial banks these days.

### **1.7 Limitation of the Study**

This study attempts to evaluate the effectiveness of credit risk management of NIC Bank Ltd. The study is purely based on the day-to-day activities of the staffs at NIC Bank and their work performances which are as per the credit policies and rules set by the higher management. Basically the study has following limitations:

- (i) The study is mostly concentrated in the credit management of NIC Bank Ltd whereby and would be mostly in descriptive form. The conclusion drawn may or may not be applicable to other various commercial banks because each of the banks has their own credit policies.

- (ii) The study is based on secondary and primary data, financial statements and financial reports.
- (iii) This study covers the time series data of 7 years i.e. from Fiscal Year 2059/60 to 2065/66 only.
- (iv) The study examines the portfolio management as well as the credit policy and its overall credit management of NIC Bank Ltd, which is based on the overall activities of the bank and the data relevant are collected from the staff from Kathmandu branch and are analyzed as needed.

## **1.8 Organization of the Study**

The whole study is divided into five different chapters. They are:

### **Chapter I: Introduction chapter**

In this chapter includes the background of the study, focus of the study , objective of the study, statement of the problem , significance of the study, limitation of the study and organization of the study .

### **Chapter II : Review of Literature**

This chapter is broadly divided in to many parts which include the issue related to the study which is already published such as in articles, journals, unpublished thesis etc.

### **Chapter III: Research Methodology**

In this chapter deals with the methodology adopted in carrying out the research and it includes research design, sources and type of data, data gathering instrument procedure and tools for analysis.

### **Chapter IV: Data Presentation and Analysis**

In this chapter deals with the various analysis and interpretations of data like analysis of deposits, loan and advances and profile of NIC bank, financial and statistical analysis. It also shows major finding of the study.

### **Chapter V: Summary, Recommendation and conclusion**

In this chapter, whole study is summarized, in recommendation, statement suggestion and problem solving suggestion are included and summary and conclusion are shown on the basis of the findings. Bibliography and other appendices used in analysis if data have been attached at the end of the study.

## **CHAPTER - II**

### **REVIEW OF LITERATURE**

#### **Conceptual Framework**

A commercial bank is business organization that receives and holds deposits of fund from others, makes loans or extends credits and transfers funds by written order of deposits.

Commercial bank is a corporation, which accepts demand deposits subject to check and makes short-term loans to business enterprises, regardless of the scope of its other services (American Institute of Banking, 1972:345).

Thus accepting money as deposits and lending it to borrowers are two major functions of commercial banks. But to carryout late category of function bank has to set sound policy. Sound policy creates optimum portfolio of investment. In the following sections, investment policy and portfolio have been dissected to arrive at a clear concept.

#### **2.1 Credit Management**

Credit is the amount of money lent by the creditor (bank) to the borrower (customers) either on the basis of security or without security. Sum of the money lent by a bank is the credit (*Oxford Advance Learners Dictionary; 1992:279*).

Credit and advances is an important item on the asset side of the balance sheet of a commercial bank. Bank earns interest on credits and advances, which is one of the major sources of income for banks. Bank prepares credit portfolio, otherwise it will not only add bad debts but also affect profitability adversely. Credit is financial assets resulting from the delivery of cash or other assets by a lender to a borrower in return for an obligation of repay on specified date on demand.

The word credit management is divided into two parts; credit and management. Credit means providing of overdraft, loans, discount of bills, issuance of letter of credit and guarantee, acceptance, investment on any financial instrument (i.e. preference share, debentures etc) or any other action which create obligations or risk to the Bank's assets whether temporarily or permanently. Similarly, management is the process of efficiently

getting activities completed with and through other people. The management process includes the planning, organizing, leading and controlling activities that take place to accomplish objectives. Management must include three common factors: goals, limited resources and people. Thus, credit management can be defined as the process of managing the credit effectively with a goal to achieve through the people. Here goal being the profit and effective use of sources of funds in viable projects where the income is expected to earn smoothly by the bank.

Credit always has some risk attached. Credit management is more than merely component of risk management; it constitutes the very foundation of effective risk management. The process of lending takes into consideration about the people and system required for the evaluation and approval of loan requests, negotiation of terms, documentation, disbursement, administration of outstanding loans and workouts, knowledge of the process and awareness of its strength and weakness are important in setting objectives and goals for lending activities and for allocating available funds to various lending functions such as commercial, installment and mortgage portfolios (*Johnson; 1940: 132*).

Book named “Banking Management” says that in banking sector or transaction, an unavoidable-ness of loan management and its methodology is regarded very important. Under this management, many subject matters are considered and thought. For example, there are subject matters like the policy of loan flow, the documents of loan flow, loan administration, audit of loan, renewal of loan, the condition of loan flow, and the provision of security, the provision of the payment of capital and its interest and other such procedures. This management plays a great role in healthy competitive activities (*Bhandari; 2003:170*).

The credit management of a bank includes both portfolio management and credit policy of a bank. The portfolio management is the complete management of using the sources of funds to meet the liquidity of a bank and use the funds in a proper way so that profitable income generate smoothly. The credit policy on the other hand is a written document that a bank or financial institution designs to analyze, administer, monitor, recover and handle the credit operations. The basic objective of the Credit Policy Document (CPG) is to ensure consistency in credit operations.

### **2.1.1 Portfolio Management**

Portfolio management aims at striking an optimum balance between the conflicting goals of liquidity, solvency and profitability. The bank has to solve the problem of portfolio management, i.e. it has to manage its assets and liabilities in such a way that maximum profits are secured without losing liquidity and solvency. According to Ranlett, “The objective of commercial banks’ portfolio management is to achieve the pattern and contribution of assets and liabilities necessary to satisfy bank needs for liquidity, solvency and income. These needs are competitive because, for example, the assets that provide maximum liquidity generate little or no income” (*Paul; 1999:17*).

Portfolio management helps to minimize or manage the credit risks by spreading over the risk to various portfolios.

There are three main objectives of portfolio management namely

- Liquidity
- Solvency and
- Profitability

#### **Liquidity**

Liquidity means the ability of the bank to give cash on demand. In the words of Sayers, “Liquidity is the word that the banker uses to describe the ability to satisfy demand for cash in exchange for deposits” (*Sayers; 1967:75*). The business of the bank primarily depends upon the confidence of the depositors on the bank and the depositors feel confident when they are sure that they can demand their money back at any time. Thus, the bank must keep adequate amount of liquid assets with them to meet the demand from the depositors. Liquid assets are assets either in the form of cash or in a form that can be easily turned into cash. The liquid assets of a bank are cash in hand, money at call or short notice, bills of exchange and treasury bills etc; etc. Thus, liquidity is necessary for maintaining public confidence. If a bank does not have sufficient liquidity, it loses public confidence and, in turn, destroys its own business.

The proportion of the total deposits to be kept in liquid or the amount of cash reserve to be maintained by the banks depends upon the following factors.

- (i) Requisite Cash Reserve
- (ii) Banking Habits

- (iii) Structure of Banking
- (iv) Nature of Money Market
- (v) Nature of Economy
- (vi) Nature of Business Condition
- (vii) Seasonal Requirements
- (viii) Type of Depositors
- (ix) Clearing House Arrangements

### **Solvency**

Solvency (or security or safety) of a bank depends upon the, relationship between its liabilities and assets. It implies that assets are at least equal to liabilities. In the words of Chandler, “A bank is solvent when the value of its assets is at least great enough to cover all its liabilities except those to its owners; it is insolvent when the value of its assets is insufficient to cover all the non owner claims against it” (*Paul; 1999:18*).

Solvency is different from liquidity. Liquidity refers to the ability of the bank to easily turn its assets into cash without loss to meet the demands of the depositors. Solvency means liabilities of the bank equal to or exceeding its assets. A bank may be solvent, but not liquid, if its assets, though equal to or exceed its liabilities, cannot be quickly exchanged for money to meet the demand of the depositors. Similarly, an insolvent bank may continue to operate without any liquidity problem, if its assets are at least equal to its liabilities but there is not much demand for payment from the depositors.

The problem of insolvency arises because of the fundamental reason that while the liabilities of the bank are fixed in terms of the monetary unit of the country, the assets of the bank are liable to change in value terms. A considerable fall in the realizable value of assets may lead to the insolvency of the bank. Some factors must be taken into consideration by the banks in portfolio management ensuring solvency. These factors are

- (i) Misappropriation or Loss of Assets
- (ii) Risk of Default
- (iii) Change in Rate of Interest

## **Profitability**

Bank is a business institution whose objective is to earn maximum profit or income. It must earn sufficient income to meet the cost of running the bank to make payments of interest on deposits and to yield a reasonable return for the owners. For this purpose, the bank should invest its funds in such a way that it earns maximum income with minimum variable cost. Income of the bank depends upon

- (i) The receipts from an asset during the period it stays with the bank;
- (ii) The variable cost in owning the asset; and
- (iii) The cost of acquiring the assets.

To conclude, all the three objectives of portfolio management are not equally important. Liquidity and solvency are the primary and basic objectives. Profitability is secondary and less important objective. The secondary objective should not be achieved at the cost of the primary objectives. In other words, liquidity and solvency of the bank must not be sacrificed in the endeavor to maximize profit.

### **2.1.2 Credit Policy**

“A credit policy is a written document that a bank or financial institution designs to analyze, administer, monitor, recover and handle the credit operations. The basic objective of the Credit Policy Guideline (CPG) is to ensure consistency in credit operations. Generally, credit policy is formulated by the high level management of the bank or financial institution and approved by the board of directors. The policy once announced does not remain constant over time. It is reviewed and revised periodically to reflect the changes in banking policy requirements” (*Bhatta; 2059: 99*).

Credit is always a matter of judgment based on one’s own experience and convictions. The management of the bank therefore is always cautious, as every loan should be scrutinized before making any investments. A cornerstone of safe and sound banking is the design and implementation of written policies and procedures related to identifying, measuring, monitoring and controlling credit risk (*Vaidya; 45:2001*). Credit policies establish the framework for lending and guide the credit-granting activities of the bank. Credit policies should address such topics as target markets, portfolio mix, price and non-price terms, the structure of limits, approval authorities, exception reporting etc. Such policies should be clearly defined, consistent with prudent banking practices and relevant

regulatory requirements, and adequate for the nature and complexity of the bank's activities. Some of the basic principles of credit policies of the bank are:

- The policies should be designed and implemented within the context of internal and external factors such as bank's market position, trade area, staff capabilities and technology. Policies and procedures that are properly developed and implemented enable the bank to:
  - (a) Maintain sound credit-granting standards;
  - (b) Monitor and control risk;
  - (c) Properly evaluate new business opportunities; and
  - (d) Identify and administer problem credits.
  
- Banks must operate under sound, well-defined credit granting criteria. These criteria should include a thorough understanding of the borrower or counterparty, as well as the purpose and structure of the credit, and its source of repayment.
  
- Establishing sound, well-defined credit granting criteria is essential to approving credit in a safe and sound manner. The criteria should be set out who is eligible for credit and for how much, what types of credit are available, and under what terms and conditions the credits should be granted.
  
- Banks must receive sufficient information to enable a comprehensive assessment of the true risk profile of the borrower or counterparty. At a minimum, the factors to be considered and documented in approving credits must include:
  - (a) the purpose of the credit and the source of repayment;
  - (b) the integrity and reputation of the borrower or counterparty;
  - (c) the current risk profile (including the nature and aggregate amounts of risks) of the borrower or counterparty and its sensitivity to economic and market developments;
  - (d) the borrower's repayment history and current capacity to repay, based on historical financial trends and cash flow projections;
  - (e) a forward-looking analysis of the capacity to repay based on various scenarios;
  - (f) the legal capacity of the borrower or counterparty to assume the liability;

- (g) for commercial credits, the borrower's business expertise and the status of the borrower's economic sector and its position within that sector;
- (h) the proposed terms and conditions of the credit, including covenants designed to limit changes in the future risk profile of the borrower; and
- (i) where applicable, the adequacy and enforceability of collateral or guarantees, including under various scenarios.

Once credit-granting criteria have been established, it is essential for the bank to ensure that the information it receives is sufficient to make proper credit-granting decisions. Thus, information will also serve as the basis for rating the credit under the bank's internal rating system. In this study, we shall basically focus in the above mentioned principles of credit policies and shall analyze whether the bank granting the credit within its policies or not. Further, we shall also look into the monitoring of its investments in the branch level.

Ultimate result is the indicator of good or bad loan approval, and from such experience that one has to arrive at a proper credit policy. General principles of sound credit policy involve among other things to extend a most courteous and sympathetic service to all eligible and delivering borrowers, as a duty cast on the banker.

The basic purpose of a commercial bank is to maximize the shareholders' wealth by accepting deposits and granting loans in the society. In order to give maximum return to shareholders, the bank is required to invest most of its fund in loans and advances, risky assets. Consequently, a clear and sound loan credit policy is a must for the safety of depositors fund and adequate for the safety of depositors fund and adequate return to shareholders. "Credit policy can be defined as the decision made in advance about the management of credit" (*Dahal; 2002:56*).

Credit is the vital and most important activity in the Bank, next only to deposit mobilization. It is the activity that generates the main income stream for the Bank. The activity should therefore be pursued with the utmost professionalism, conservation and circumspection. To indulge in reckless credit disbursement, at any operating level, would be the ultimate sin, which must be prevented at all costs. It is therefore necessary to lay down a Credit Policy to instill and internalize certain discipline in the area of credit

administration. Banks should develop and implement policies and procedures to ensure that the credit portfolio is adequately diversified given the bank's target markets and overall credit strategy. In particular, such mixes as well as set exposure limits on single counter parties and groups of connected counter parties, particular industries or economic sectors, geographic regions and specific products. Banks should ensure that their own internal exposure limits complies set by the banking supervisors. Credit policies establish the framework for lending and guide the credit-granting activities of the bank.

To meet the conflicting interest of depositors and shareholders, the established credit policy gives due regards to:

- (a) **Liquidity** : Regular amortizing and self-liquidity loan, investment in marketable securities and placements.
- (b) **Profitability** : Pricing in relation to cost of fund and risk. No concession in interest rate on the borrower's threat to shop around.
- (c) **Safety** : Analysis of capital, character, capacity, condition and collateral.
  - Marketability, transferability and validity of securities.
  - Risk dispersion/diversification

### 2.1.3 Factors affecting Credit Policy

#### (a) Statutory Directive

Credit flow as per central bank's directive:

- Loan to priority/deprived sector
- No loan to board of directors
- No loan to restricted areas
- Single obligor limit etc.
- SLR and CRR.

#### (b) Deposit Mix

- Short-term loan if dominance of short term deposit.
- Long term loan if dominance of long term deposit.

- (c) **Competition** : Credit policy should positively react to interest rate structure in the market. Flexibility required.
- (d) **Quality of Lending Officials** : Experience, knowledge, adaptability of lending officers help to formulate the sound policy.

Considering all above facts, the credit policy should be carefully established, communicated properly to the lending officers and implemented effectively by the lending officers. The credit policy of the bank is established by the board of directors based on the recommendation of Chief Executive Officer or Senior Loan Officer.

#### **2.1.4 Objectives of Sound Credit Policy**

##### **(i) To have Good Assets**

Loans are risky assets though a bank invests most of its resources in granting loans and advances. If loan assets of the bank are non-performing or bad, no bank can survive. It is the very quality of assets that led bankruptcy of many banks in South East Asia. The objective of sound loan policy is to protect depositors' interest and maximize returns to the shareholders by striking a balance between liquidity and profitability.

##### **(ii) To contribute to Economic Development**

Sound credit policy is required to ensure that loans are given to the productive sector, which contributes to capital formulation and employment generation.

##### **(iii) To give Guidance to Lending Officials**

A borrower should be assured that there would be no discrimination whether he deals with one officer or another. A sound credit policy is imperative to achieve a uniform standard procedure throughout the organization.

##### **(iv) To establish a Standard for Control**

Every policy requires periodic follow-up to ensure its proper implementation. A sound policy helps to determine the variance between actual performance and practices and to take corrective actions. A sound policy is always flexible and works as a guideline rather than a straitjacket. However, if the deviation between the practice and policy is observed, proper education to lending officer or amendment of the policy becomes inevitable.

### **2.1.5 Need of Credit Management in Commercial Banks**

In bank funds management, the cost of handling is, of course, as important as the availability of funding. Competition, deregulation, economic conditions, and increased sophistication in money management on the part of retail and wholesale depositors have increased the cost of bank fund tremendously. After initial capitalization, a bank has three major sources of funds for its business operations: deposits purchased or borrower funds (issue of shares) and capital increases. Within these three basic categories are many funding instruments whose maturities, costs, and applications in liability management vary?

Liability management, in its broadest sense, is the coordination and control of all of a bank's sources of funds so that funds are available or obtainable as needed at reasonable cost. Effective liability management ensures that funds are available to meet reserve requirements and provide adequate liquidity over the short term, and to satisfy loan demand and provide investment earnings over the long term. Most of the commercial banks in the country provide lower interests in the deposits and charge higher interests on the loans provided. Thus, they make a better margin in their earnings. Bank funding sources and the nature of liability management have undergone profound changes in recent years, and continued change and challenge are still on the horizon. The deposit structures of most banks have been altered significantly due to marked declines in traditional demand deposits and rapid increases in the volume of time deposits. The sources of most bank funds are now interest sensitive and increasingly volatile. Competition for funds is intense, and effective management of a bank's liabilities now requires a much more aggressive approach to attracting and keeping funds (*Paul; 1999:35*).

Making an unsecured loan involves taking a risk, and losses on some loans are to be expected. Commercial banks are facing increasingly credit risk (or counter party risk) risk in various financial instruments other than loans, including acceptances, inter bank transactions, trade financing, foreign exchange transactions, financial futures, swaps, bonds, equities, options, and in the settlement of transactions. Thus, the need of credit management is most as the banks should always try to mitigate the risk related to the loan provided. Steps that banks can take to limit loan losses include obtaining sufficient information on loans and borrowers and establishing an internal system of loan review in addition to the loan reviews of regulatory agencies. Banks can also affect or offset credit

risk in their loan portfolios by watching the business cycle, varying loan rates against the degree of risk and recognizing risk in loan concentration. Although specific credit risk management practice may differ among banks depending upon the nature and complexity of their credit activities, a comprehensive credit risk management program should address the following four areas:

- Establishing an appropriate credit risk environment,
- Operating under a sound credit granting process,
- Maintaining an appropriate credit administration, measurement and monitoring process and
- Ensuring adequate controls over credit risk.

Credit risk is a factor in all loans, but to varying degrees. Bank should recognize this variability by matching loan rates to risk. A bank that charges the same rates for many types of loans is not receiving adequate compensation for its riskier loans. In comparison a loan's total yield to its risk, a bank also should consider any supporting deposit balances required in conjunction with the loan and may also want to consider other profitability generated from the customer's relationship with the bank.

#### **2.1.6 Credit Control**

Credit control is the regulation of credit by the central bank for achieving some definite objectives. Modern economy is a credit economy because credit has come to play a major role in setting all kinds of monetary and business transactions in the modern economic system. Changes in the volume of credit influence the level of business activity and the price level in the economy. Unrestricted credit creation by the commercial banks, by causing wide fluctuations in the purchasing power of money, may pose a serious threat to the national economy. Hence, it becomes necessary for the central bank to keep the creation of credit under control in order to maintain stability in the economic system.

#### **2.1.7 Objectives of Credit Control**

The importance objectives of credit control are given below:

##### **(i) Price Stability**

Violent price fluctuations cause disturbances and maladjustments in the economic system and have serious social consequences. Hence, price stability is an important objective of credit control policy. The central bank, by regulating the supply of credit in accordance with the commercial needs of the people, can bring about price stability in the country.

**(ii) Economic Stability**

Operation of the business cycle brings instability in a capitalist economy. The objective of the credit control policy of the central bank should be to eliminate cyclical fluctuations and ensure economic stability in the economy.

**(iii) Maximization of Employment**

Unemployment is economically wasteful and socially undesirable. Therefore economic stability with full employment and high per capita income has been considered as an important objective of credit control policy of a country.

**(iv) Economic Growth**

The main objective of credit control policy in the underdeveloped countries should be the promotion of economic growth within the shortest possible time. These countries generally suffer from the deficiency of financial resources. Hence, the central banks in these countries should solve the problem of financial scarcity through planned expansion of bank credit.

**(v) Stabilization of Money Market**

Another objective of the central bank's credit control policy is the stabilization of the money market so as to reduce the fluctuations in the interest rates to the minimum. Credit control should be exercised in such a way that the equilibrium in the demand and supply of money should be achieved at all times.

**(vi) Exchange Rate Stability**

Exchange rate stability can also be an objective of credit control policy. Instability in the exchange rates is harmful for the foreign trade of the country. Thus, the central bank in the countries largely dependent upon foreign trade should attempt to eliminate the fluctuations in the foreign exchange rates through its credit control policy.

**2.1.8 Methods of Credit Control**

The various methods or instruments of credit control used by the central bank can be broadly classified into two categories:

1. Quantitative or general methods, and
2. Qualitative or selective methods.

**(i) Quantitative or General Methods**

The methods used by the central bank to influence the total volume of credit in the banking system, without any regard for the use to which it is put, are called quantitative or general methods of credit control. These methods regulate the lending ability of the financial sector of the whole economy and do not discriminate among the various sectors of the economy. The important quantitative methods of credit control are: (a) bank rate, (b) open market operations, and (c) cash-reserve ratio.

**(ii) Qualitative or Selective Methods**

The methods used by the central bank to regulate the flows of credit into particular directions of the economy are called qualitative or selective methods of credit control. Unlike the quantitative methods, which affect the total volume of credit, the qualitative methods affect the types of credit extended by the commercial banks; they affect the composition rather than the size of credit in the economy. The important qualitative or selective methods are; (a) marginal requirements, (b) regulation of consumer credit, (c) control through directives, (d) credit rationing, (e) moral suasion and publicity, and (f) direct action.

**2.1.9 Directives Relating To Loan Classification and Provisioning**

**2.1.9.1 Classification of Loans and Advances**

The Clause 2 of NRB Directive dated 2057.12.2 has classified loans and advances into 4 categories:

**(a) Pass**

The loans included in this category are those that have no recovery problems (principal and interest not past due) and principal and interest past due for a period of 3 months. These are defined as Performing Loans.

**(b) Substandard**

The loans and advances which are past due for a period of over 3 months to 6 months are considered to be Substandard Loans.

**(c) Doubtful**

All loans and advances which are past due for a period of 6 months to 1 year are included in this category.

**(d) Loss**

All loans and advances which are past due for a period of more than 1 year as well as advances which have least possibility of recovery or considered un-collectable and those having thin possibility of even partial recovery in future are included in this category.

**Note:**

- a. If it is appropriate in the views of the bank management, there is no restriction for classifying the loan and advances to lower category. For instance, advances falling under substandard may be classified into doubtful or loss, but the same cannot be classified as Pass category.
- b. All loans and advances classified under substandard, doubtful and loss is categorized as Non-Performing Loan.

**2.1.9.2 Additional Arrangement in Respect of Pass Loan**

The Clause 6 states that the loans and advances fully secured by gold, silver, fixed deposit receipts and GoN bonds are to be categorized under “Pass”. However, where collateral of fixed deposit receipt or GoN bonds is placed as security against loan for other purposes, such loan to be classified on the basis of aging per Clause 1.

**2.1.9.3 Additional Arrangement in Respect of “Loss Loan”**

Even if the loan is not past due, loans having any or all of the following discrepancies are classified as “Loss”.

- a. No security at all or security that is not in accordance with the borrower’s agreement with the borrower’s agreement with the bank.
- b. The borrower has been declared bankrupt.
- c. The borrower cannot be found.
- d. Purchased or discounted bills are not realized within 90 days.
- e. The credit has not been used for the purpose originally intended.
- f. In the process of recovery, auctioning of collateral is initiated or is under litigation.
- g. Loans provided to the borrowers black-listed by CIC.

**Note:**

- a. Bills Purchased/Discounted are to be classified into Loss Loan where they are not realized within 90 days. This is departure from the normal classification rules applicable to other loans. Accordingly, it seems that Bills would have only two classifications viz. PASS and LOSS.

**2.1.9.4 Additional Arrangement In Respect Of Term Loan**

The Clause 7 states that in respect of term loans, the classification is to be made against the entire outstanding loan on the basis of the past due period of overdue installment.

**2.1.9.5 Classification of Contingent Liabilities Converted Into Loan**

The clause 8 states that in the event of conversion of contingent liabilities of the bank e.g. letters of credit, immature guarantees, into the liability of the bank, such amount become recoverable from the customers. Hence, such amounts shall also be classified as per the classification norms applicable to loans and advances and accordingly be provided with requisite provisioning.

**2.1.9.6 Prohibition to Recover Principal and Interest**

The Clause 9 states that banks are prohibited from realizing interest on advances by debiting the customers' account that result in overdraft in such account or by utilizing/approving overdraft facilities of such customers.

**2.1.9.7 Loan Loss Provisioning**

As per the Clause 10, the requisite loan loss provisioning on the basis of the loan classification of outstanding credit shall be as follows:

<u>Classification of Loan</u>	<u>Loan Loss Provision</u>
Pass	1 percent
Substandard	25 percent
Doubtful	50 percent
Loss	100 percent

**Note:**

- a. Loan loss provision set aside for Performing Loan is defined as “General Loan Loss Provision” and Loan loss Provision set aside for non-performing loan is defined as “Specific Loan Loss Provision”.

#### **2.1.9.8 Adjustments in Provisioning**

Except in the following cases, banks are prohibited from making any adjustments in their loan loss provision amount:

- a. The loan has been completely written off.
- b. Outstanding principal and interest on the loan has been completely paid off by the borrower and the account has been closed.
- c. Loan has been classified and provision for loan loss is made.

#### **2.1.9.9 Actions to be taken in Cases of Non-compliance**

In cases where a bank has been found not complying the regulation in respect of loan classification and provisioning, NRB may ask for clarification. If the bank's response is unsatisfactory, NRB shall initiate the following action in exercise of its authority under section 23 (1) of NRB Act, 2058:

- a. Reclassify the loans and advances and require adjusting the appropriate provisioning within 3 months.
- b. If the banks continue to un-comply with the above directive, the following additional actions is initiated in exercise of the authority under Section 32 of NRB Act, 2012 (with amendment):
  - Suspend the distribution of dividends.
  - Suspend the extension of loans.
  - Suspend the acceptance of deposits.

#### **2.1.10 Directives Relating the Loans to Productive and Priority Sector (Including Deprived Sector)**

Commercial banks are required to extend advances in the productive, priority and deprived sector as follows:

##### **Of the Total Advances:**

40 percent to Productive Sector,

12 percent to Priority Sector, including Deprived Sector

Each bank is specified with the requisite amount for extension of advances to Deprived Sector. At present most of the banks as per the rule of NRB, has to extend 3 percent of the total loan outstanding in the deprived sector. Those banks whose deprived sector credit has not reached 3 percent, the requirement shall increase by 0.5 percentage point each

year on previous year's limit till it reaches 3 percent. Further, in the case of those banks whose limit has already reached and whose ceiling would reach 3 percent in the later years, the limit for each year shall remain to the same level (3 percent).

**(a) Productive Sector**

All advances made to the industries, including investments made in their shares and debentures are included under Productive Sector Lending. The other Productive Sector includes

- Pre-shipment Credit
- Export bill financing
- Advances for purchase of public transport means and agricultural/farm equipments
- Investments in shares and debentures of Government/semi-government or private sector or banking like companies.

**(b) Priority Sector and Priority Sector Credit**

“Priority Sector” is defined to include micro and small enterprises which help increase production, employment and income as prioritized under the national development plans with an objective to uplift the living standard of general public particularly the deprived and low income people by progressively reducing the prevalent unemployment, poverty, economic inequality and backwardness. Micro and Small Enterprises are classified into Agricultural enterprises, Cottage and Small Industries and Services. In addition, other businesses as specified by NRB from time to time are also included under Micro and Small Enterprises. All credits extended to priority sector up to the limit specified by NRB are termed as “Priority Sector Credit”.

**(c) Deprived Sector and Deprived Sector Credit**

“Deprived Sector” includes low income and particularly socially backward women, tribes, lower caste, blind, hearing impaired and physically handicapped persons and squatters (SUKUMBASI) family. All credits extended for the operation of self-employment oriented micro-enterprises for the upliftment of economic and social status of deprived sector up to the limit specified by NRB is termed as “Deprived Sector Credit”. “Deprived Sector Credit” is considered, as integral part of priority sector credit and this credit comprise micro-credit programs and projects also.

**1. Priority sector lending is categorized in 4 Major Headings**

- Agriculture and agric related enterprise
- Cottage and small industry (as defined by Industrial enterprise Act)
- Service Industry
- Other enterprises

**2. Credit Limit**

Banks are required to extend PS loans as prescribed by NRB from time to time.

Following limits are applicable presently:

- a. Per project Rs. 2 million and Rs. 2.5 million for agriculture and services enterprise and industry respectively.
- b. In addition to above, enterprises, which are considered as national priority such as micro hydro projects generating up to 10 megawatts of electricity, tea estate development, production, processing/packaging. Cold storage, occupational and technical training institutes-development and extension, blending/production of chemical fertilizer, industrial pollution control equipment of Rs. 20 million remaining within single borrower limits. NRB have subsequently enhanced limit in hydro up to Rs. 100 million.
- c. Development/manufacturing of computer software and hardware, manufacturing and operation of non-polluting (safa) tempo and other vehicles, captive generator used for irrigation by industries, loans up to Rs. 10 million within single obligor limit.

**3. Computation**

**(i) Deprived Sector**

Up to Rs. 30,000 per group member/family, investment in equity or loan investment in approved rural developments banks/micro-finance intermediaries.

**2. Priority Sector**

All loans and investments in deprived sector as per 3.1 above and as per 2 above (credit limit) will be counted as priority sector investment.

### **3. Method of Computation**

On gross loans/advances of 6 months earlier, 12 percent should be in priority sector and 3 percent in deprived sector. However NRB has recently issued a circular reducing PS lending ceiling to 7 percent, which is being further reduced to 2 percent over a period of 5/6 years.

### **4. Penalty**

If there is any shortfall in lending, penalty at the highest rate of interest charged by the bank will be levied.

#### **2.1.11 Directives Relating to Single Borrowers Limit**

As per the Clause 1 of NRB Directives No. 3 Commercial banks may extend to a single borrower or group of related borrowers the amount of Fund Based loans and advances up to 25 percent of the core capital fund and Non Fund Based off-balance sheet facilities like letters of credit, guarantees, acceptances, commitments up to 50 percent of its core capital fund. The purpose of this directive is to avoid extension of credit to single borrower or group of interrelated borrowers and to mitigate concentration risk due to extension of loan to single/specific area of economy.

Limit:

Fund Based Credit = Up to 25 percent of Core Capital

Non-Fund Based Facilities = Up to 50 percent of Core Capital

#### **2.1.12 Definition of Core Capital**

The definition of Core capital is defined in the directives relating to Capital Fund. The Core capital includes the following:

- Paid up capital
- Share Premium
- Non-redeemable Preference Shares
- General reserve Fund
- Accumulated Profit and Loss Account

### **2.1.13 Limit Adjustment**

Where a customer has once utilized the off-balance sheet facilities and such facilities has turned into fund based credit, directives relating to fund based credit limit shall be applied for fixation of limit to such customers.

### **2.1.14 Exemption of Credit Limit**

The exposure limits per clause 1 above is not applicable to:

- a. Credits and facilities extended against fixed deposit receipts, deposits placed with the bank, securities and bonds issued by GON and NRB as well as against unconditional guarantees issued by multilateral institutions including the World Bank, Asian Development Bank, and International Finance Corporation.
- b. Advances/facilities to be used for the purpose of importing specified merchandise by the following public corporation:

<u>Name of Corporation</u>	<u>Merchandise</u>
Nepal Oil Corporation	Petrol, Diesel, Kerosene, and L.P. Gas
Agriculture Input Corporation	Fertilizer, seeds
Nepal Food Corporation	Cereal

### **2.1.15 When do different borrowers/companies fall under the Same Group?**

1. If a unit/company owns 25 percent or more shares of another company-then both companies fall under the same group.
2. Directors of a company, shareholders/directors of a private limited company or family members living together or separately (being husband, wife, son, daughter-in-law, unmarried daughter, foster son, unmarried foster daughter, father, mother, step mother, brother and sister who are under care of concerned individual) and such persons themselves or their relatives as mentioned above owning 25 percent or more shares of another company, then all such companies come under the group.
3. Even if concerned shareholders/directors as per clause 2 above are owning less than 25 percent shares of another company but the person (director/partner) controls another company by:
  - Being chairman of the board of such company,
  - Being chief executive, and
  - By appointing 25 percent or more directors in the board.

4. If a borrower (individual or company) has provided cross guarantee to other borrower/company, then both will fall under single obligor.
5. Bank should submit one obligor exposure report on half- yearly basis to NRB.
6. Defined as different group : If an institution, company is owned by GoN with 50 percent or more shares, it will not fall under single obligor.
7. Creation of capital charge to mitigate concentration risk : Bank should bring an existing borrower availing higher limits prior to these norms within the single obligor limit within 6 months failing which bank should create additional capital charge by increasing primary capital within 6 months.
8. Banks should review their portfolio for concentration of credit (both funded and non-funded) to a single sector of economy. If necessary, NRB will direct banks to create capital charge as above to mitigate the risk.
9. Credit concentration will segregated in 2 levels as below:
  - Level 1: Loans of 50-100 percent of fund based limit to one sector
  - Level 2: Loans of 100 percent or more of fund based limit to one sector
10. Credit information and follow up for sectoral concentration of credit.
  - For Level 1: Bank should put in place its own MIS & Follow up procedure and review on quarterly basis.
  - For Level 2: Bank's board will have to approve such extensions, and NRB should be informed of its decision regarding maintaining exposure above 100 percent of primary capital.

#### **2.1.16 Restriction on Providing Credit Facility**

Directive on Corporate Good Governance (NRB Directive No 6, Ref: BBP 71/058, Dated 2058/5/29 with amendments).NRB has brought these directives with a view to discourage the practice or tendency whereby banks may lend to directors/their family members without proper evaluation of the loan proposal/project which causes great loss to the banks. The purpose of these directives is to restrict such practices, which take place due to favors/pressure tactics, applied by bank's directors/their family members. It encourages banks to follow the rules, regulations and develop professionalism in decision-making.

Bank can extend credit facility to:

- Promoter, shareholders of promoting group, or shareholders owning more than 1 percent shares of the bank and to bank's employees,
- To a firm or company in which bank's shareholder or employee owning more than 1 percent of its shares has financial interest, is a partner or guarantor,
- To a firm or company in which Bank's shareholders and employees own more than 10 percent shares and have voting rights-other than those cases where NRB has permitted the same,
- To a person for whom guarantee has been provided by Bank's employee or by shareholder holding more than 1 percent share,
- By pledging the property owned by bank's director, his/her family member.

Bank cannot extend credit facility to

- Bank's director and member of his/her family,
- An institution/enterprise in which the director or family member has direct financial interest or is a manager, partner, agent or guarantor of such unit.
- A firm or company in which a director and his/her family member hold more than 10 percent shares.
- A firm or company on behalf of which a director or his/her family member is guarantor.

But this will not restrict the loans against FDR or NRB Bond paper owned by director/family.

**Note:**

Family member means concerned individuals husband, wife, son, daughter-in-law, unmarried daughter, foster son, unmarried foster daughter, father, mother, step mother, brother and sister who are under his/her care.

**Exception**

Investments made by banks in the share capital of rural development banks and development banks doing micro-finance activities as part of priority/deprived sector lending do not come under the above (restrictions).

### **2.1.17 Major Concerns of Banks in Nepal**

In the present scenario, Nepal banking system is evolving itself as a powerful instrument of planning and economic growth of all the developed and underdeveloped sectors. The scope and scale of banking too have undergone substantial change in response to the saving and credit needs of people. After the restoration of democracy, Nepal had adopted more liberal and open economic policies. The process of economic liberalization and reforms in the financial sector introduced in the early 1980s has led to significant changes in the banking industry. The open and liberal policy of the government in the financial sector has helped in establishing many banks and financial institutions in the country. These banks have contributed towards introducing new technology, new banking systems and efficient service delivery in the country. These banks have been contributing in line with the thrust of economic liberalization and financial sector reform, i.e. making the financial system more competitive, efficient and profitable. Like other organization, the main objective of the banking industries is profit maximization and wealth maximization. However, the banks are responsible for safeguarding the interest of the depositors, the shareholders and the society they are serving. A sound banking system is important because of the key roles it plays in the economy: intermediation, maturity transformation, facilitating payment flows, credit allocation and maintaining financial discipline among borrowers.

At present, large numbers of banks are operating in Nepal. Naturally, they are residing a wide range services. They are keeping up with the changes taking place in the world. Though the changes are towards advancement and right direction, the banking today is not hale and hearty. Both the government and private sector banks are facing difficulties. The major concern of the banks is about the NPA, which is led by the circumstances led by the government regulations regarding the trade treaty, continuous transportation disruptions, macroeconomic conditions, poor management of the industries, Maoist insurgency etc. These conditions have affected the industrial sector mostly and thus many industries have shut down. The banks too are having difficulties in recovering the investments from these sectors. Thus, the NPA has been increasing every year. Apart from that, there are other reasons that have increased the NPA of the banks both in private and government owned banks. The main reason is the poor credit management in these banks which has led increment in NPA continuously rather to recover those bad loans. The recent rumor of some private sector banks manipulating their audited and un-audited has led the banking sectors in the speculation and thus NRB has come forward to penalize those banks if found guilty.

## **2.2 Review of Previous Studies**

### **2.2.1 Review of Articles**

Due to slowdown in the world economy and deteriorating law and order situation of the country, many sectors of the economy has already sick. When any sector of economy caught cold, bank started sneezing. From this perspective, the banking industry as a whole is not robust. In case of investors having lower income, portfolio management may be limited to small saving income. But on the other hand, the portfolio management means to invest funds in various schemes of mutual funds like deposits, shares and debentures for the investors with surplus income. Therefore, portfolio management becomes very important both for an individual's as well as institutional investors. Large investors would like to select the best mix of investment assets (*Sherstha; 1998:15*).

In the article "*Efficiency Indicators of Commercial Bank: A Comparative Analysis*" saying that indicators of the bank may be viewed on the basis of amount allocated for loan loss provisioning against loan and investment (*Ghimire;1999:21*).

In the article entitled "*None performing assets: A need for rationalization,*" has attempted to provide connect with the term NPA and its potential sources, implication on NPA in financial sector in the South East Asian Region. He had also given possible measures to contain NPA. Loans and advances of financial institutions are meant to be serviced either part of principal of the interest of the amount borrowed in stipulated time as agreed by the parties at the time of loan settlement. Since the date becomes pas dues, the loan becomes non-performing asset. The book of the account with lending institution should be effectively operated by means of real transaction effected on the part of the debtor in order to remain loan performing (*Chhettri; 2000:17*).

As stated by the writer, the definition on NPA differs from country to country. In some of the developing countries of Asia Pacific Economic Cooperation (APEC) forum, a loan is classified as non-performing only after it has been arrear for at least 6 months. Similarly, it is after three months in India. Loans, thus, defaulted are classified into different categories having their differing implication on the asset management of financial institution. He also stated that NPA are classified according to international practice into 3 categories namely substandard, doubtful and loss depending upon the temporal position

of loan default. Thus, the degree of NPA assets depends solely on the length of time the asset has been in the form on non-obliged by the loan taker. The more time it has elapsed the worse condition of asset is being perceived and such assets are treated accordingly. As per Chhetri's view, failure of business for which loan was used, defective and below standard credit appraisal system credit program sponsor by Government, slowdown in economy/recession, diversion of fund is some of the factors leading to accumulation of NPA.

He further said that there is serious implication of NPA on financial institution. He further added that the liability of credit institution does not limit to the amount declared as NPA but extent to extra amount that required for provisioning depends upon the level of NPA and their quality. As per his view, rising level of NPA create a psyche of worse environment especially in the financial sector. He mentioned that by reviving the activities of the financial institution like waiving interest, rescheduling the loan, writing off the loan, appointing private recovery agent, taking help of tribunals and law of land etc. NPA can be reduced.

Finally, he concluded that financial institutions are the best with the burden of mounting level of NPA in developing countries. Such assets are income flow of the financial institution while claiming additional resources in the form of provisioning thereby hindering gainful investment. Rising level of NPA cannot be taken as stimulus but the vigilance demanded to solve the problem like this, eventually will generate vigor to gear up the banking and financial activities in more active way contributing to energizing growth.

In the article "*NPA: some suggestions to tackle them*" found saying that unless the growth in NPA is kept in control, it has the potential to cause systematic crisis. He has mentioned that a dream of globalization led to huge investment, which unfortunately could not be utilized properly due to hesitant liberalization policies. Large corporate misused the credits and delayed payments and contributed indirectly for enhancing NPA ratio. He further argues that lack of vision in appraisal of proposal while loan sanctioning, reviewing or enhancing credit limits, absence of risk management policy of financing, concentrating of credit in few group of parties and sector, lack of coordination among various financiers, lack of initiatives to take timely action against willful defaulters, indecision on existing out of bad loans for fear of investigating agencies like special police, public accounts committee of the parliament have also contributed in whatsoever

measures to the worsening situation on NPA front. He further pointed out that most crucial reason for the increase in the NPA is the shabby and defaulter friendly legal system. Suggesting the remedy of NPA he adds that administrative system should be strengthened, legal reforms should be made and assets Reconstruction Company should be formed (*Pradhan; 2001:23*).

Nepal Rastra Bank (NRB) has issued directives to all commercial banks and financial institution ensuring transparency during loan disbursement. As per provision, all commercial banks as well as financial institutions are now required to disclose the name of loan defaulters in every six months. Until now there was no such legal system of disclosing the loan defaulter's name. The new directives have also barred the financial institutions from lending any amount to the blacklisted defaulter and his family members. The Credit Information Bureau (CIB) can blacklist the firm; company clears the debt within the stipulated period. As per the set criteria for blacklisting, the CIB would monitor those individuals and companies that have the principle loans of above Rs. 1 million. If the creditor fails to clear the amount within time or is found missing the loans among others, the creditor can be blacklisted (*Kathmandu Post; 2003:9*).

In the article titled "*Credit Sector Reform and NRB*" has tried to highlight the effects of change or amendment in NRB directives regarding loan classification and loan loss provisioning. Although the circumstances leading to financial problem or crisis in many Nepali banks differ in many respects, what are common across of the most banks, which increased size of non-performing assets (NPA)? To resolve the problem of the losses or likely losses of this nature facing the industry, NRB as the central bank amended several old directives and issued many new circulars in the recent years (*Ghimire; 2003:22*).

As opined by him, since majority of the loans of most of the commercial banks of the country at present falls under substandard, doubtful and even loss categories, loan loss provisioning now compared to previous arrangement would be dramatically higher. The new classification and provisioning norms are very lenient as they help to strengthen banks financially. He added that the old system remained in force from 1991 to 2001, which was probably the most volatile decade of the business operation of the country. He has indicated that loan loss provisioning as percentage of total credit of April 1, 2001 is 5.2 percent but as April 13, 2003, it has jumped to 18.39 percent. If only private banks are

considered, it is 2.12 percent of April 2001 where as it is 6.30 percent as of April 13, 2003. The total increment in loan loss provision is Rs 11,328.11 million and the total increment in credit is only Rs 7,976.70. He has also stated that tightening provisioning requirements on NPL is essential to ensure that banks remain liquid even during economic downturns.

In the conclusions, he has mentioned that in the recent years, NRB has worked for management and reform of the credit of the financial institution more seriously and NRB has adopted reforms aimed not just at dealing with problem banks but also at strengthening banking supervision to reduce the likelihood of future crisis. All prudential directives of NRB in connection of credit sector reform have been made revised on after April 2001. To adapt to such changes there can be some difficulties and for a better and harmonized reform. NRB should continue to be supportive, proactive and also participative to take opinions of bankers for a change in regulation/policy taking place in the future.

### **2.2.2 Review of Journals**

In the article of New Business Age entitled “*Entrepreneur – Friendly Credit Policy*” has reviewed the present credit policy with main focus of the credit decision being based on the collateral. He argues that only collateral should not be considered as the basis of the credit decision.

At the time when Nepalese banking industry is confronting with the increasing NPA, it might seem unwise and untimely to suggest that commercial banks extend loan to the potential entrepreneurs without collateral. It is not that they must ignore the collateral altogether while making credit decision. Collateral may be one of the important elements of the credit decisions. But this should not be a pre-condition for any credit decision. Lesson should be learned from the past experience of this credit policy that collateral alone does not ensure quality of credit decision. The fluctuation and stagnancy in the real estate business has further reinforces this view. More important, Nepalese bankers must themselves have to have entrepreneurship spirit which means, they should not hesitate to take educated risk by giving more weight to the entrepreneurship dimension of the credit proposals while making credit decision. The ability of lending is identifying and investing a distinct competitive advantage in the crowded market. However it's essential that any government rules and regulations that inhibit the promotion of entrepreneurship in the country must be abolished.

Entrepreneurship development is one of the important conditions for the economic growth of a country. There must be the sprout of entrepreneurship activities in the country for rapid economic growth and progress. However it doesn't happen automatically. We must create necessary conditions and environment where people with skill, knowledge and hunger to make money by starting their own business can get easy access to capital.

### **2.2.3 Review of Previous Thesis**

**Bajracharya (2000)**, conducted a thesis study on "Investment of commercial Bank in priority sector". Her research objectives are:

- To analysis the trend of investments in private sectors for 10 years from 2047 B .S to 2056 B.S.
- To analysis the trend of repayment in private sector for 10 years
- To measure the effectiveness of the program in terms of the investment and repayment in rural and urban sector.
- To evaluate the banking procedures and services in disbursing loan in this sector.
- To provide package of suggestion based on this study.

#### **Major Findings:**

- The target of 12 percent investment of total outstanding liabilities in priority sector and 3 percent out of which has been invested in deprived sector has been met by RBB.
- Trend analysis for 10 years shows the increasing trend of investment in priority sectors which shows that the commercial banks are giving due consideration to increase investment in priority sector.
- Trend analysis of repayment for 10 year shows that the repayment has also increased in the following years.
- Interest charged on the loan disbursed in this sector is fairly less than the interest charge on loans for other purposes. In addition to this, there is high overhead cost incurred for supervision, administration and others in this program.
- Investment on agriculture is higher than investment on industry and service sector.

**Aryal (2003)**, *has submitted a thesis named "A Evaluation of Credit Investment and Recovery of Financial Public Enterprises in Nepal"- A case study of ADB/N. The major objectives of his research are:*

- Actual credit disbursement, collection and outstanding are increasing in decreasing rate.
- Yearly increase in credit disbursement is higher than that of collection.

- Positive relation between credit disbursements is higher than that of collection.
- Targeted credit collection and disbursement fixed by planning and project department is not significantly different than the actual.
- Most of the customers are unaware of the policy of the bank.
- The use of fund towards the hire purchase credit is decreasing rapidly.
- As the direct data of good and bad credit was not available, the credit loss provision used to analyze the credit quality. Credit loss is increasing every year significantly and should be controlled.
- The loss provision of some company is more alarming on individual analysis. The company having above average credit loss provision should rethink on their investment and repayment policy.

**Chand (2004)**, study “Credit Disbursement and Repayment of Agriculture Development Bank Nepal” has following objectives, major findings.

**Objectives:**

- To see the repayment situation.
- To find out the rate of growth of investment.
- To explain possible causes of non and delayed repayment.

**Major Findings:**

- There is systematic relationship between credit disbursement and repayment .The coefficient of co-relation value as calculated is 0.94 which shows significance relationship.
- Repayment situation is satisfactory on production inputs and agro-based industry, warehouse and ,marketing percentage of repayment to due to the farm mechanization and irrigation and tea horticulture and live stock, poultry and fisheries in much less satisfactory.

**Tamang (2005)**, studied the comparative study of credit management in HBL and NABIL in his thesis entitled “*A Comparative Study on Credit Management in Himalayan Bank Limited and NABIL Bank Limited*”. To explore the credit management, he tried to assess the existing credit practices, examine the credit efficiency, analyze the industry environment and the relationship among loan and advances, non-performing loan and net profit.

To meet the stated objectives, he used both secondary and primary information to analyze the data. Then, he applied different financial as well as statistical tools. Basically, *Mr. Tamang* used to ratio analysis as financial tools and mean, standard deviation, Correlation and Regression Analysis, ANOVA as statistical tools.

He found from the study that credit practices and credit efficiency was relatively better in NABIL Bank Limited as compared to Himalayan Bank Limited for the reason that the ratio analysis designed for credit practices and credit efficiency scored relatively in better for NABIL Bank Limited. He found that the correlation coefficient between non-performing loan and net profit in NABIL Bank Limited and Himalayan Bank Limited was found to be 0.157 and -0.716 respectively. He further concluded that trend of nonperforming loan did not have high implication in NABIL Bank Limited while there was a significant impact of nonperforming loan in net profit in Himalayan Bank Limited. He described in his primary information that industry environment as well as the management quality was relatively better in NABIL Bank Limited as compared to Himalayan Bank Limited.

Lastly, he recommended to the bank management that proper level of portfolio should be maintained so that profitability position will be maximized with regard to credit practices. Similarly, the bank management of both the banks is recommended to maintain proper level of balance with regard to credit efficiency. He also suggested to the bank management of HBL to manage its loan more effectively so that the percentage of non-performing loan will be in minimum because the relation of loan and nonperforming loan in HBL was found very high. Finally, he recommended to the future researchers to focus into non financial indicators job satisfaction, customer satisfaction, stakeholder support, government rating, supervisor's teamwork, human resource development, human resource planning, human resource management, job designation etc. as influencing factor for credit management.

**Dhakal (2007)**, study on “Soundness of Credit Policies in Nepalese Commercial Bank” has following objectives and major findings.

**Objectives:**

- To study the relationship between deposits and lending.
- To study the classification, provision for loan/advance and it's effect in profitability.
- To examine the sector wise and lending.
- To identify and analyze the problem and prospects of lending practice of Nepalese Commercial Bank.

**Major Findings:**

- Flow of lending depends upon the availability of low cost deposit in the market.
- Consumer financing and loan to manufacturing units are mere secured than other sectors.

- First preference of Banks for security to loan is fixed assets collateral followed by Government Bank.
- Lengthy procedure in loan processing and tedious legal procedures is the key factor affecting growth of lending.
- Lack in follow ups and irregular site visits lead to generation of NPA.

**Recommendation:**

- Lending procedure should be short.
- Need to invest in small entrepreneur's development program and deprived sector.
- Need to invest in productive areas that utilize natural resources.
- Target agriculture based sector for long term sustainability.

**Ms Nepal (June 2009)**, study on "Credit Management of Commercial Bank in Nepal" has following objectives, major findings and recommendation.

**Objective:**

- To assess the credit practices of selected Nepalese Commercial Banks.
- To explore the credit efficiency analyzes the industry environment and management quality in term of credit practices.
- To explore the relationship with loan and advance, NPA and net profit.

**Major Findings:**

- Repayment is satisfactory in agro based industry and production sector compared to other sectors.
- Management quality and credit efficiency of selected banks found satisfactory as they have standard credit practices.
- Credit disbursement and repayment has significant relationship, flow of new credit depends upon the recovery status.

**Recommendation:**

- Low cost deposit shall be increased and NPA shall be decreased to increase the profitability.
- Credit policies and procedures shall be tightened to endure no further losses due to flow of new loan.

### **2.3 Research Gap**

The purpose of this research is to develop some expertise in one's area to see what new contribution can be made and to receive some ideas, knowledge and suggestion in relation to credit management of Nepal Industrial and Commercial Bank. Thus, the previous studies can't be ignored because they provide the foundation to the present study. In other words, there has to be continuity in research. This continuity in research is ensured by linking the present study with the past research studies. Here, it is clear that the new research cannot be found on that exact topic, i.e. "Credit Management of Nepal Industrial and Commercial Bank Limited". Therefore, to fulfill this gap, this research is selected. To complete this research work many books, journals, articles and various published and unpublished dissertations are followed as guideline to make the research easier and smooth.

Previous researchers could not cover all the aspects of credit management in Nepalese context. They analyzed the credit management by using secondary source of information in term of credit practices or lending practices. But actually, credit management covers many other areas such as total deposit collection, total lending, NPA level, loan loss provision and relationship between them which are very much important for credit appraisal. Present study tries to define credit management by applying those facts. Furthermore primary data are collected by developing and distribution scheduled questionnaire to credit customers and staffs of credit department of the concerned banks to find out most reliable facts about the credit management. Therefore, this study is useful to the concerned bank as well as different persons such as shareholders, investors, policy makers, stockbrokers, state of government etc. Thus, present study may be valuable piece of research work.

## **CHAPTER - III**

### **RESEARCH METHODOLOGY**

Research methodology may be defined as a systematic process that is adapted by the researcher in studying a problem with certain objective in view. In other words, research methodology describes the methods and process applied in the entire aspect of the study. It is a broader concept, which consist of tools and techniques use to analyze the data.

The basic objective of this study is to evaluate the overall performance of Credit Management of NIC Bank mostly regarding the portfolio management and credit policy of the bank. In order to evaluate the performance and effectiveness of Credit Management, an appropriate methodology has to be followed. Thus, in this chapter, the focuses have been made on research design, population and sample, nature and sources of data and collection procedures etc. such that it will help to draw a meaningful interpretation so that recommendation can be made.

#### **3.1 Research Design**

Research is a theory building activities. Theory is a relationship between two or more facts. The research design refers to the conceptual structure within which the research is conducted. “A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure” (*Kothari; 1962:42*). In other words it is strategy specifying which approach will be used for collecting and analyzing the data.

“A good design is often characterized by adjectives like flexible, appropriate, efficient, and economical and so on. Generally, the design, which minimizes bias and maximizes the reliability of the data collected and analyzed, is considered a good design that gives the smallest experimental error is supposed to be the best design in many investigations. The first step of the study is to collect the necessary information and data for the evaluation of Credit Management of NIC Bank, which comprises of portfolio and risk management. The research is conducted on the basis of secondary data collected in published journals, NRB Directives, annual report and from the websites regarding credit management. For this study, two different research designs are used to meet the objectives of the study. These designs are analytical and descriptive.

Analytical, descriptive and exploratory research design is conducted so as to evaluate the overall performance of credit management since its inception on the basis of presented data and facts. The data are carefully studied and analyzed under specific major headings so as to meet the objective of the study. In order to carry out the study, both financial and statistical analysis has been conducted.

### **3.2 Population and Sample**

Population is the group of individuals under which study is carried out. NIC Bank has completed 10 years, hence the financial statements, viz, Balance sheet and Profit and Loss account published till date are considered as the population of the study. The data are collected from the annual report and from the website of NIC Bank and Nepal Stock Exchange.

### **3.3 Nature and Sources of Data**

The data collection activities consists of taking ordered information from reality and transferring it into some recording system so that it can later be examined and analyzed for patterns. Without any data, nothing can be studied. The structure of the financial analysis, statistical analysis and the decision-making depends upon the data. If the data collected are reliable, correct decisions can be obtained. Hence, collection of relevant data is essential for correct and important decisions.

The data collected in order to carry out this thesis are basically primary and secondary. The data are mostly taken from the published journals, NRB Directives, annual report of NIC Bank, articles published in newspapers and the website of Nepal Stock Exchange. The study mainly focuses on the Credit Management of NIC Bank and therefore is more concentrated on the analysis of the overall performance of the bank. The study analyses the balance sheet and profit and loss account.

### **3.4 Data Collection Techniques**

The researcher used two types of data collection techniques. One is primary data collection and other is secondary data collection.

## **Primary data**

Primary data are those collected by the researcher on the concerned topic, which are original in nature. While studying about the credit management, we came across primary data from different sources like direct in-depth interviews with staffs of credit department unit.

## **Secondary data**

The secondary sources of data are the information received from reports, books, newspapers, general reports of concerned banks

Journals etc. The major sources of secondary data are as follow:

- Annual NRB directives
- Books related to loan portfolio
- Banking and financial statistics
- Website of concerned bank

## **3.5 Data Analysis Tools**

In the course of analysis and interpretation various financial and statistical tools are used in the study. The percentage trend methods, simple arithmetic mean, Karl Pearson's coefficient of correlation, probable error and different types of financial ratios are applied to analyze and interpret the data. Thus, the analysis of the study is focused on

3.5.1 Financial Tools and

3.5.2 Statistical Tools

### **3.5.1 Financial Tools**

Financial analysis is the starting point for making plans, before using any sophisticated forecasting and planning procedures. Understanding the past is a prerequisite for anticipating the future. Management should be particularly interested in knowing financial strengths of the firm to make their best use and to be able to spot out financial weaknesses of the firm to take suitable corrective actions. The future plans of the firm should be laid down in view of the firm's financial strengths and weaknesses.

Financial analysis is the process of identifying the financial strengths and weaknesses of the firm by properly establishing relationships between the items of the balance sheet and the profit & loss account. To carry out the financial analysis, different financial tools are used.

Ratio Analysis is a powerful tool of financial analysis. A ratio is defined as “the indicated quotient of two mathematical expressions” and as “the relationship between two or more things” (*Pandey; 1999*). In financial analysis, a ratio is used as a benchmark for evaluating the financial position and performance of a firm. Ratio helps to summarize large quantities of judgment about the firm’s financial performance. The point to note is that a ratio reflecting quantitative relationships helps to form a qualitative judgment. Such is the nature of all financial ratios.

### **Types of Ratios**

Several ratios, calculated from the accounting data, can be grouped into various classes according to financial activity or functions to be evaluated. As the study work is mainly focused on the Credit Management and its overall performance, the study is analyzed by analyzing four different ratios.

- Liquidity Ratio
- Activity /Efficiency *Ratio*
- Lending Efficiency Ratio
- Profitability Ratio

### **Liquidity Ratio**

It is extremely essential for a firm to be able to meet its obligations as they become due. Liquidity ratios measure the ability of the firm to meet its current obligations. The failure of a company to meet its obligations due to lack of sufficient liquidity will result in a poor creditworthiness, loss of creditors’, confidence, or even in legal tangles resulting in the closure of the company. A very high degree of liquidity is also bad, idle assets earn nothing. The firm’s funds will be unnecessarily tied up in current assets. Therefore, it is necessary to strike a proper balance between high liquidity and lack of liquidity (*Pandey; 1999:25*).

There are different liquidity ratios, however only following liquidity ratios are carried out for the study.

- Current Ratio
- Cash and Bank Balance to Current Assets
- Fixed Deposit to Total Deposit
- Savings Deposit to Total Deposit
- Total Risk Assets to Current Assets

### **Current Ratio**

Current Ratio is a measure of the firm's short-term solvency. It indicates the availability of current assets in rupees for every one rupee of current liability. A ratio of greater than 1 means that the firm has more current assets than current claims against them. The standard current ratio is 2:1, however, for a bank the ratio between 1to2 is considered satisfactory, as we know that all the deposits are not withdrawn at a time from the bank.

The current ratio is computed as follows:

$$\text{Current Ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

### **Cash and Bank Balance to Current Assets**

The cash and bank balance refers to total cash and balance of the bank at different banks to meet its obligations regarding contingent liabilities and other liquidity position of the bank. The ratio of cash & bank balance to current assets measures the percentage of cash and bank balance to total current assets. The formula for computing the ratio is as follows:

$$\text{Cash and Bank Balance to Current Assets} = \frac{\text{Cash and Bank Balance}}{\text{Current Assets}}$$

### **Fixed Deposit to Total Deposit**

A fixed deposit is one where a customer is required to keep a fixed amount with bank for a specific period generally by those who do not need money for stipulated period. The bank pays a higher interest on such deposits. The ratio of fixed deposit to total deposits measures the percentage of fixed deposits in total deposits of the bank. It is calculated as follows:

$$\text{Fixed Deposit to Total Deposit} = \frac{\text{Fixed Deposit}}{\text{Total Deposit}}$$

### **Savings Deposit to Total Deposit**

The saving deposit is one of the deposits collected from small depositors and low-income depositors. The bank usually pays small interest to the depositors against their deposits.

The ratio measures the percentage of savings in total deposits. The ratio is computed as

$$\text{Savings Deposits to Total Deposits} = \frac{\text{Savings deposits}}{\text{Total deposits}}$$

### **Total Risk Assets to Current Assets**

The total risk assets comprises of total lending of the bank either in short term or long term lending excluding the investment made on common shares and government securities. Similarly, the current assets of the bank include cash and bank balance, money at call and short notice, risk assets, investments, interest receivables within 30 days. The ratio measures the percentage of risk assets in the current assets of the bank.

The ratio is computed as follows:

$$\text{Total Risk Assets to Total Current Assets} = \frac{\text{Total risk assets}}{\text{Total current assets}}$$

### **Activity/Efficiency Ratio**

Funds of creditors and owners are invested in various assets to generate revenues and profits. The better management of assets is the larger the amount of income. Activity ratios are employed to evaluate the efficiency with which the firm manages and utilizes its assets. Though, there are several activity ratios to judge the effectiveness of asset utilization, only the following ratios are analyzed:

### **Risk Assets to Total Deposits**

The ratio of risk assets to total deposits measures the extent to which the bank is successfully utilizing the outsiders' funds for the profit generating purpose. In other words, the ratio measures the bank's ability to utilize the deposits that includes interest bearing and non-interest bearing accounts in making investment in risk assets. This ratio is calculated as follows:

$$\text{Risk Assets to Total Deposits} = \frac{\text{Risk assets}}{\text{Total deposits}}$$

### **Risk Assets to Saving, Fixed, Call and Short Deposits**

The ratio of risk assets to savings, fixed, call and short deposits measures the efficiency of NIC on its investments out of interest bearing sources of funds. It measures the ability of the bank management to invest in risk assets, which generally should exceed 60 percent. This ratio indicates about what proportion of these deposits is utilized to invest in risk assets. Since the deposits are interest bearing, the bank should be able to utilize these funds in higher return investments so that it is able to cover its interest expenses on such deposits. This ratio is calculated as follows:

Risk Assets to Savings,

$$\text{Fixed, Call \& Short Deposits} = \frac{\text{Risk assets}}{\text{Savings, fixed, call and short deposits}}$$

### **Staff Costs to Total Operating Costs**

The ratio of staff costs to total operating costs measures the proportion of expenses made by bank on its staff out of its operating costs. The ratio is calculated by applying following formula:

$$\text{Staff Costs to Total Operating Costs} = \frac{\text{Staff costs}}{\text{Total operating costs}}$$

### **Total Costs to Gross Income**

The ratio of total costs to gross income measures the cost control capacity of NIC from its gross income. In other words, the ratio indicates that the lower the ratio, the higher effective of cost control. The ratio is calculated as follows:

$$\text{Total Costs to Gross Income} = \frac{\text{Total costs}}{\text{Gross income}}$$

### **Total Shareholders' Equity to Total Risk Assets**

The ratio of total shareholder's equity to total assets measures the contribution of shareholders' equity on risk assets. In other words, this ratio helps to examine the percentage of shareholder's equity invested on risk assets. It is calculated as follows:

$$\text{Total Shareholder's Equity to Total Risk Assets} = \frac{\text{Total shareholder's equity}}{\text{Total risk assets}}$$

### **Loan and Advance to Total Deposit Ratio**

Commercial banks utilize the outside's fund for profit generation purpose. Loan and advances to total deposit ratio shows whether the banks are successful to utilize the outside funds (i.e. total deposit) for the profit generating purpose as loan and advances or not. Generally, a high ratio reflects higher efficiency to utilize outsider's fund and vice versa. The ratio can be calculated by using following formula.

$$\text{Loan and advances to total deposit ratio} = \frac{\text{Loan and Advances}}{\text{Total Deposit}}$$

Loan and advances includes short term loan and advances, overdrafts, cash credit, local and foreign bills purchased and discounted.

### **Loan and Advance to Total Assets Ratio**

It measures the ability in mobilizing total assets into loan and advances for profit generating income. A higher ratio is considered as an adequate symbol for effective utilization of total assets of bank into loan and advances which creates opportunity to earn more and more. It is calculated as:

$$\text{Loan and advances to total assets ratio} = \frac{\text{Loan and Advances}}{\text{Total Assets}}$$

### **Total investment to Total Deposit Ratio**

A commercial bank may mobilize its deposit by investing its fund in different securities issued by government and other financial and non-financial companies. Effort has been made to measure the extent to which the banks are successful in mobilizing the total deposit on investment. A high ratio is the indicator of high success to mobilize the banking funds investment and vice versa.

$$\text{Total Investment to Total Deposit Ratio} = \frac{\text{Total Investment}}{\text{Total Deposit}}$$

### **Lending Efficiency Ratio**

The efficiency of a firm depends to a large extent on the efficiency with which its assets are managed and utilized. This ratio is concerned with measuring the efficiency of bank. This ratio also shows the utility of available fund. The following are the various type of lending efficiency ratios:

**(i) Non-Performing Loan to Total Loan and Advance Ratio**

NRB has directed all the commercial bank create loan loss provision against the doubtful and bad debts. But both of our concerned banks have not provided data on non-performing loan in balance sheet and profit and loss account.

$$\text{Non-performing Loan to Loan and Advance Ratio} = \frac{\text{Non Performing Loan}}{\text{Total loan and advance}}$$

**(ii) Loan loss provision to Total Loan and Advance Ratio**

Loan loss provision to total loan and Advance describes the quality assets that a bank holding. The provision for loan loss reflects the increasing probability of non-performing loan. The provision of loan mean the net profit of the banks will come down by such amount. Increase in loan loss provisions decrease in profit result to decrease in dividends but it's positive impact is that strengthens financial conditions of the bank by controlling the credit risk and reduced the risks related deposits. So it can said that loan suffer it only for short term while the good financial conditioned and a safety of loan will make bank's prosperity resulting increasing profits for long term. The low ratio indicates the good financial condition and safety of loans will make banks prosperity resulting increasing profits for long term. The low ratio indicators the good quality of assets in total volume of loan and advance. High ratio indicates more risky assets in total volume of loan and advance.

In conclusion, we can figure out that the reason indicators more risky assets into the volume of loan and advance. So, the bank has not effective credit policy. Because the ratio go on increasing trend.

**Profitability Ratio**

Profits are essential but it would be wrong to assume that every action initiated by management of a firm/institution should be aimed at maximizing profits, irrespective of social consequences. Profit is the ultimate 'Output' of a firm, and it will have no future if it fails to make sufficient profits. Thus, the profitability ratios are calculated to measure the operating efficiency of the firm. Profitability ratios indicate the degree of success in achieving desired profit. Various profitability ratios are calculated to measure the operating efficiency of business enterprises.

Thus, the profitability ratio enables the lenders and investors to decide whether to invest in a particular business or not. Some of the important profitability ratios used are as follows:

### **Return on Risk Assets (RORA)**

The term risk assets refers to bank's investments on cash credit, short term & long term loan, retail lending etc. The ratio of return on risk assets is useful in measuring the profitability of all financial resources invested in the banks risk assets. The formula to measure the ratio is as follows:

$$\text{Return on Risk Assets} = \frac{\text{Net profit after tax (NPAT)}}{\text{Total risk asset}}$$

### **Return on Total Assets (ROTA)**

The ratio of return on total assets measures the success and failure to utilize the total assets. This ratio judge effectiveness in using the pool of funds, which is useful to measure the profitability of all the financial resources, invested in the firm's assets. Higher the ratio better is the financing position.

It is computed by using the following formula:

$$\text{Return on Total Assets} = \frac{\text{NPAT}}{\text{Total assets}}$$

### **Return on Equity (ROE)**

Common shareholders are entitled to the residual profits. The rate of dividend is not fixed; the earnings may be distributed to shareholders or retained in the business. Nevertheless, the net profit after tax represents the return. A return on shareholder's equity is calculated to see the profitability of owners' investments. The shareholder's equity or net worth will include paid-up share capital, share premium and reserves and surplus less accumulated loss (*Van Horne, 2002:361*). The return on shareholders' equity is net profit after taxes divided by shareholders' equity.

$$\text{ROE} = \frac{\text{NPAT}}{\text{Net worth}}$$

### **Earning Per Share (EPS)**

EPS indicates whether or not the firm's earnings on per share basis have changed over that period. EPS simply shows the profitability of the firm on a per share basis; it does not reflect how much is paid as dividend and how much is retained in the business.

$$\text{EPS} = \frac{\text{Profit after tax (PAT)}}{\text{No. of shares outstanding}}$$

### **Price Earning Ratio (P/E Ratio)**

The price earnings ratio is widely used by the security analysis to value the firm's performance as expected by investors. It indicates investors' judgment or expectations about the firm's performance. Management is also interested in this market appraisal of the firm's performance and will like to find the causes if the P/E ratio declines. P/E ratio reflects investors' expectations about the growth in the firm's earnings.

The reciprocal of the earnings yield is called the price-earnings (P/E) ratio. Thus,

$$\text{Price Earning Ratio} = \frac{\text{Market value per share}}{\text{Earning per share}}$$

### **Interest Earning to Total Assets**

The ratio of total interest earned to total assets measures the earning capacity of NIC from the investment on total assets. The total assets comprise of current assets, fixed assets and investments in common shares and government securities. This ratio measures the interest earnings on its total investments and shows the effectiveness of the bank management in using its sources of funds in profitable and reliable ventures. It is computed as follows:

$$\text{Interest Earning on Total Assets} = \frac{\text{Interest earnings}}{\text{Total assets}}$$

### **3.5.2 Statistical Tools**

“By Statistics”, we mean aggregates of facts affected to a marked extent by multiplicity of causes, numerically expressed, enumerated or estimated according to reasonable standards of accuracy, collected in a systematic manner for a pre-determined purpose and placed in relation to each other. Statistics helps in formulating policies regarding the business with valid forecasts about the future with the help of tendencies based on past records (*Bajracharya; 2000:23*).

Unless the figures are compared with other figures with the same kind, they are meaningless. Statistical methods such as averages, ratios, percentages, coefficients etc. offer the best way of comparison between two phenomena, which will enable to draw valid conclusion. There are different statistical tools, however only four methods are used to analyze the study.

### **Average (Mean)**

The averages are the measures, which condense a huge mass of data into single value representing the whole data. Averages are the typical values around which most of the data tend to cluster. These are the values, which lie between two extreme observations of the entire data and give us the idea about the concentration of the values in the central part of the distribution.

In the study, simple arithmetic mean is used. Arithmetic mean (A.M.) or simply a 'mean' is a sum of set of observations divided by the number of observations. The purpose of computing average is to get the single value that describes the characteristics of the entire group and facilitate the comparison. If  $X_1, X_2, X_3 \dots X_n$  are the given observations, then their A.M. is usually denoted by  $\bar{X}$  is given by:

$$\bar{X} = \frac{X_1 + X_2 + X_3 \dots X_n}{n} = \frac{\sum X}{n}$$

### **Standard Deviation**

The measurement of the scatterings of the mass of figure in a series about an average is known as Dispersion. The standard deviation measure the absolute dispersion. The greater the amount of dispersion, greater the standard deviation is. Karl Pearson introduced the concept of standard deviation and is denoted by the small Greek letter " $\sigma$ ".

During the analysis of data, standard deviation is calculated by using the statistical formula "STDEV" on excels data sheet on computer.

### **Coefficient of Variation**

Standard deviation is an absolute measure of dispersion. The relative measure of dispersion based on standard deviation is known as coefficient of variation. The coefficient of variation is the relative measure of dispersion, comparable across distribution, which defined as the ratio of the standard deviation to the means expressed in percent. The small value of C.V. means high degree of consistency in the observed distribution and vice versa. The coefficient of variation (C.V.) is given by the following formula and this gives the percentage.

$$\text{Coefficient of variation (C.V.)} = \frac{\text{Standard Deviation}}{\text{Mean}}$$

## **Range**

The simplest method of studying the variation in the distribution is the range. Range is defined as the difference between the largest item and the smallest item in the set of observations. If L is the largest item and S, the smallest item, then the range is defined by:

$$\text{Range} = L - S$$

It is not a superior method to measure the dispersion of the data. Even though this method is used here because of its simplicity. In this study, range of ratios will be calculated to measure the dispersion (*Bajracharya; 2000:34*).

## **Trend Analysis**

Trend method shows the changes over a period of time. This method is very important for analyst because it indicates the direction of change of any balance sheet item such as deposit, investment, operating profit etc. Suppose, if we want to find the change on a particular item say investment, a base year is selected as 100 (in this research, the base year is FY 2059/60). Then the amounts of subsequent years are divided by the base year to know the change pattern. Under this topic, following subtopic has presented:

- Trend analysis of total deposit
- Trend analysis of total investment
- Trend analysis of risk assets
- Trend analysis of net profit
- Trend analysis of loan loss provision
- Trend analysis of Interest income

## **Correlation**

The measure of correlation called the 'correlation co-efficient' summarizes in one figure, the degree and direction of movement. Correlation analysis is used here to find out the degree of relationship between two variables.

The theoretical explanation of correlation of coefficient is that when there is a change in volume of one variable (say deposits) there will be a change in another variable (say investment). The important thing to be noted here is that determining the extent to which the two variables are correlated but it does not tell us about cause and effect relationship. Correlation may be positive & negative, linear and non-linear and simple, multiple and

partial. In this research study, the Karl Pearson's Correlation coefficient is taken to analyze the relationship between different variables like deposits and investments, income and profit etc.

The correlation coefficient is defined as the ratio of explained variance to the total variance.

$$\text{Correlation Coefficient } (r_{xy}) = \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}}$$

Where,  $x = X - \bar{X}$  and  $y = Y - \bar{Y}$ .

In this section of the study, Karl Pearson coefficient of correlation has been used to find out the relationship the following variable :

- Co-efficient of correlation between deposit and loan advance.
- Coefficient of correlation between total deposit and total risk assets.
- Coefficient of correlation between NPA and loan loss provision.
- Coefficient of correlation between interest income and total risk assets.
- Coefficient of correlation between net worth and net profit.

### **Probable Error**

Probable error of the correlation denoted by P.E. is the measure of testing the reliability of the calculated value of r. If r be the calculated value of correlation from a sample of n pair of observations, then P.E. is defined by

$$\text{P.E.} = 0.6745 \times \frac{1 - r^2}{\sqrt{n}}$$

It is used in interpretation whether calculated value of r is significant or not.

- a. If  $r < \text{P.E.}$ , it is insignificant. So, perhaps there is no evidence of correlation.
- b. If  $r > 6 \text{ P.E.}$ , it is significant.

In other cases, nothing can be concluded.

## **CHAPTER - IV**

### **DATA PRESENTATION AND ANALYSIS**

#### **4.1 Analysis of Portfolio Management, Credit Policy and Its Monitoring Process**

##### **4.1.1 Portfolio Management**

Effective bank management requires understanding how banks are influenced by monetary and fiscal policy, by changes in business cycles, by changes in business cycles, by interest rate movements, and by local community characteristics, bank structure, and management style.

Bank profitability depends on how successfully management can spread earnings between the interest a bank pays for funds and the interest it earns on funds. A bank's balance sheet and income statement show how effectively the bank manages its assets and liabilities. The balance sheet indicates how the bank manages its assets and liabilities. The balance sheet indicates the nature and extent of management decision-making in each of the bank's functional areas as of a given date. The income statement shows the degree of profitability resulting from management decisions over a given time period. These financial statements provide a framework for analyzing the bank's financial condition and for planning the bank's future course of action; changes in the bank's portfolios of assets and liabilities-changes that may lead to increased profitability.

Banks are major investors in country and local government securities. These investments can be a substantial part of a bank's total assets and can provide a significant percentage of the bank's total income. A bank's investment allows it to realize earnings on its assets and yet maintain the ability to liquidate funds, which are needed to grant loans and cover deposit outflows. The bank has different committee to monitor its portfolio management. The higher level management of the bank heads these committees, which meet more often to discuss on the fund management and other necessary issues as per the requirements. There are two committees that mostly discuss on the portfolio management of the bank:

- a. Assets Liabilities Committee (ALCO) and
- b. Management Committee (MANCOM)

**a. Assets Liabilities Committee (ALCO)**

The active and effective management of a bank's assets and liabilities has assumed increasing importance and greater complexity in recent years. One use of asset and liability management is for planning to meet liquidity purposes. But this is only one part of the process. Maximizing bank profitability and minimizing the bank's exposure to risk are equally important concerns. The bank's asset and liability portfolios must be maintained and coordinated to enhance profitability and control risk. This can be accomplished through effective decision making regarding the volume, mix and pricing of earning assets and the liabilities that fund them. The ALCO of NICBL is headed by CEO and includes HBB, MC-BB, COO, MC-CB, MTF and other senior heads as per the need. It usually meets once a month to discuss on the portfolio management of the bank.

The Asset/liability management coordinates the bank's portfolio of assets and liabilities in order to maximize bank profitability and stockholder earnings over the long term, consistent with safety and liquidity needs. The objectives interest in asset/liability management include planning to meet liquidity needs, planning the maturities of assets and paid and liabilities in order to maintain or maximize the spread between interest costs and invest income –all of which must be accomplished without exposing the bank to excessive risk of default. Liquidity is a key concern in the construction of the asset and liability portfolios. Liquidity is the asset portfolio is maintained by structuring assets so that fluctuations in deposit levels can be covered and demands for credit can be met by holding liquid assets that will be sold or that will mature to meet liquidity needs. Thus, asset management is concerned with adjustments in the price and availability of credit and in the bank's holdings of liquid assets in relation to deposit and loan patterns. To maximize the net interest margin, ALCO must establish and implement policies and strategies affecting overall asset acquisition and funding within the constraints, and the dictates of the bank's marketplace (*Paul; 1999*).

**Responsibilities of ALCO**

The objectives of the asset/liability management committee are to improve the bank's net interest margin, insulate the banks from interest rate sensitivity, maximize stockholders' long-term earnings, and avoid any excessive default risk. The ALCO's responsibilities generally include managing the acquisition and allocation of bank funds to ensure adequate liquidity, maximum profitability, and minimum risk. This includes reviewing

the recent past performance of the bank's loan and investment portfolios, assessing funding strategies and costs, and monitoring the bank's distribution of assets and liabilities in terms of rate, volume and mix. The ALCO also reviews budgets and earnings forecasts, and implements asset/ liability management strategies such as spread management, gap management and interest sensitivity analysis.

### **Asset/Liability Management Strategies**

There are three strategies approaches to asset/liability management:

- Spread management focuses on maintaining an adequate spread between a bank's interest expense on liabilities and its interest income on assets.
- Gap management focuses on identifying and matching rate-sensitive assets and liabilities to achieve maximum profits over the course of interest rate cycles.
- Interest sensitivity analysis focuses on improving interest spread by testing the effects of possible changes in the rates, volume, and mix of assets and liabilities, given alternative movements in interest rates.

These strategies attempt to closely coordinate bank asset and liability management so that bank earnings are less vulnerable to changes in interest rates.

### **b. Management Committee (MANCOM)**

The management committee is also headed by CEO and comprises of senior executives of the bank. The committee also meets every week to discuss the different issues regarding the major business and strategic issues. Similarly, it also emphasizes and focus on different issues like credit policies, branches performances, operating expenses of the bank.

The committee makes necessary recommendations regarding the business and strategic issues to the branches through circular to the branches. The branch level staffs follow the strategy set by the MANCOM and focus on their business so as to achieve the target set by the higher management.

### **4.1.2 Credit Policies and Its Monitoring Process**

The bank has been operated under sound and well-defined credit-granting criteria. These criteria should include a thorough understanding of the borrower or counterparty, as well

as the purpose and structure of the credit, and its source of repayment. Credit is the vital and most important activity in the Bank, next only to deposit mobilization. It is the activity that generates the main income stream for the Bank. The activity should therefore be pursued with the utmost professionalism, conservation and circumspection. To indulge in reckless credit disbursement, at any operating level, would be the ultimate sin, which must be prevented at all costs. The bank has therefore laid down a sound Credit Policy to internalize certain discipline in the area of credit administration. It has developed and implemented policies and procedures to ensure that the credit portfolio is adequately diversified given the bank's target markets and overall credit strategy. In particular, such mix has set exposure limits on single counter parties and groups of connected counter parties, particular industries or economic sectors, geographic regions and specific products. Banks has ensured that their credit policies have been strictly followed by lower level management at all branches and that all the credit teams have been monitoring the accounts properly.

Credit policies establish the framework for lending and guide the credit-granting activities of the bank. The credit policy of the bank is satisfactory as it thoroughly checks all its credit proposals whether it is corporate credit or retail lending. Every single proposal is routed through right channel and then it is either approved or declined by the higher management with certain recommendations wherever needed. Similarly, the documentation process are also scrutinize from the legal advisor. However, the major analysis regarding the credit policies of the bank is as follows:

- The credit department in all branches is divided into three division mainly sales team, marketing & retail lending and credit support unit.
- The sales team reviews the credit proposals of all the corporate credit business under its relationship and put forward ad-hoc requests of the borrower upon the requirement of the borrower. In addition to that it also solicits the new business if it is viable project/business.
- The main responsibility of the marketing team is to look after the retail banking and go on marketing the new products of the bank. Similarly, it looks after the small size business and also focus to increase the deposits of the bank.
- The credit support team executes the necessary credit documentation as per the requirement of the loans approved or as recommended by the sales team/MC-BB.

Similarly, it also monitors the stock position of the borrowers' bi-monthly/quarterly and prepares the drawing power of the borrower. It also ensures that the insurance of the stocks is in place and informs the borrower about the expiry of the insurance and reduction of the drawing power of the borrower if the stock position of the borrower is deficit as per the condition laid down by the bank (i.e. 70 percent of stocks plus account receivables less account payables).

- The CSU unit also prepares reporting regarding the LLP, sector wise lending reports, account monitoring report of the borrowers etc and informs it to the central credit at the end of every month.
- Each and every proposal including ad-hoc requests of the borrower are put forward to the central credit which evaluates its requirements and makes approval based on the recommendations of the branch manager and sales team.
- Further, it accumulates monthly reports sent by the branches and prepares the consolidated report and then submits it to the NRB as per the rule.
- Besides, it recommends every branches to monitor the loan portfolio of the branches so as to ensure that every investments made turn to be good loans.
- The bank had BCMC, which approves the high exposure loans if it feels comfortable for the investments.
- Similarly, the board meeting is held every month so as to inform the board members about the performance of the bank and also the monthly achievements of the bank. On the other hand, the board members amend the credit policies as per the need of the bank so as to have effective monitoring policies for its investments.
- The bank has internal auditors who make inspections of the branches twice every year on the overall documentations of every department including credit departments. They make necessary recommendations to the branch level at the end so that external auditors headed by NRB staffs may not find the loopholes of the bank.

Hence, it can be concluded that the overall credit management of the bank is at comfortable position and is always focused to implement the rules of NRB. Similarly, it is also focused on the credit policies of NRB and till date it has been able to implement the NRB regulations smoothly. Further, the bank is able to provide the efficient service to its

customers from its branches situated at 8 different cities of the country. The higher-level management is able to meet the targeted profit with investments on risk assets by the continuous efforts of the staffs at different levels. Thus, the credit management of the bank as a whole can be considered satisfactory.

The purpose of the study is to analyze the performance of the credit management of the bank. The study is focused on both the portfolio management as well as credit policies of the bank. After collecting the necessary data, this section of the study attempts to analyze, interpret and present the data so that some conclusions can be drawn for the objective of this study. The descriptive analysis of credit policies and monitoring has also been carried to know the performance of the credit management of the bank.

In this study, the data relating to profit, deposits, loan loss provisions, NPA, NPAT, RA, NW, current ration etc. are presented in various tables throughout the section of this study and similarly the relationship between them are also carried out. The important calculations regarding profitability, liquidity and activity are carried out in the financial analysis while trend analysis while trend analysis and correlation between total deposits and RA, NPA and Loan Loss Provisions, interest income and RA, NW and Net Profit, interest expenses and total borrowings and deposits, Net profit and RA etc. are carried out in statistical tools to study the performance of the bank. In order to carry out the study various figures and tables were prepared so as to make the study clear, simple and understandable.

## **4.2 Liquidity Ratio**

Liquidity refers to that state of position of the bank, which pronounces its capacity to meet all its cash obligations. In other words, it refers to the capacity of the bank to pay cash against the deposits. As we know that a large part of a bank's deposits are withdrawn on demand and hence the bank must be prepared with sufficient degree of liquidity of its assets. The liquidity position of a bank is such an important factor that it must be able to meet its cash requirement either by its cash vault or by the help of converting its assets into cash in case of demand for its customers. However, it is a known fact that all the deposits are not withdrawn at a time. Moreover, everyday people come to deposit as well. Thus, the demand of liquidity is normally offset by their supply (*Dahal; 1999*).

The following are the ratios to analyze the liquidity position of the bank.

#### 4.2.1 Current Ratio

Current Ratio is a measure of the firm's short-term solvency. It indicates the availability of current assets in rupees for every one rupee of current liability. A ratio of greater than 1 means that the firm has more current assets than current claims against them. The standard current ratio is 2:1, however, for a bank the ratio between 1to2 is considered satisfactory, as we know that all the deposits are not withdrawn at a time from the bank. The current ratio is computed as follows:

$$\text{Current Ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

**Table No. 4.1**  
**Current Ratio**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
Current Assets	2518.65	4117.78	3632.21	3902.13	5358.27	7063.77	9611.60
Current Liabilities	2072.86	3728.08	3236.55	3485.41	5309.64	6814.11	9502.53
<b>Ratio</b>	<b>1.22</b>	<b>1.10</b>	<b>1.12</b>	<b>1.12</b>	<b>1.01</b>	<b>1.04</b>	<b>1.01</b>
<b>Mean</b>	<b>1.088</b>						
<b>S.D. (σ)</b>	<b>0.075</b>						
<b>C.V.</b>	<b>0.069</b>						

*Source: Annual Reports of NIC Bank*

If we see table 4.1, we find that 1.22 is the highest and 1.01 is the lowest among all the ratios. As a conventional rule, a current ratio of 2:1 or more is considered satisfactory. However, as mentioned above, we know that the depositors do not withdraw their deposit at a time and hence, the ratio though below the standard level is considered satisfactory.

- During FY 2059/60, the current assets have not increased compared to that of current liabilities due to which the current ratio has decreased compared to that of FY 2059/060. This is because, the deposits of the bank have increased whereas the investments have not increased drastically.
- Similarly, during FY 2061/62 and FY 2062/63, the ratio is at the similar level. This is because the current assets and the current liabilities of the bank have increased with the same rate and thus the ratio is same.

- During 2063/64, the current ratio is 1.01, which is one of the lowest among all the ratios and this indicates that the bank has higher deposits compared to its investments. Further, it indicates that the deposits of the bank has drastically increased which can be considered satisfactory from the bank's point of view because without its funds the bank is unable to make investments and ultimately it is unable to earn profit. From the shareholders' point of view the ratio is still satisfactory because, the bank has enough current assets to meet its obligations.
- During FY 2064/65, the current assets have not increased compared to that of current liabilities due to which the current ratio has decreased compared to that of FY 2064/65. This is because the lower increment in the investments and greater increment in the deposits of the bank.

The average mean ratio is 1.088, standard deviation 0.075 and coefficient variance is 0.069. The fluctuation between current assets to current liabilities is 0.069. The fluctuation observed in current ratio during the seven years period; however it has still enough assets to meet its liabilities. Hence, it can be considered satisfactory.

#### **4.2.2 Cash and Bank Balance to Current Assets**

The cash and bank balance refers to total cash and balance of the bank at different banks to meet its obligations regarding contingent liabilities and other liquidity position of the bank. The ratio of cash & bank balance to current assets measures the percentage of cash and bank balance to total current assets. The formula for computing the ratio is as follows:

$$\text{Cash and Bank Balance to Current Assets} = \frac{\text{Cash and Bank Balance}}{\text{Current Assets}}$$

**Table No. 4.2**  
**Cash & Bank Balance to Current Assets Ratio**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
Cash and Bank Balance	234.39	539.45	559.53	318.06	319.3	1010.39	749.14
Current Assets	2518.65	4117.78	3632.21	3902.13	5358.27	7063.77	9611.60
<b>Ration in %</b>	<b>9.31</b>	<b>13.10</b>	<b>15.40</b>	<b>8.15</b>	<b>5.96</b>	<b>14.30</b>	<b>7.79</b>
<b>Mean</b>	<b>10.57</b>						
<b>S.D. (σ)</b>	<b>3.36</b>						
<b>C.V.</b>	<b>0.32</b>						

*Source: Annual Reports of NIC Bank*

From table 4.2, we can figure out that 15.40 percent is the highest and 5.96 percent is the lowest among all. It indicates that the cash and bank balance of the bank has been decreasing during these years however the current assets have been increasing continuously. It reflects that the fund management of the bank is poor and thus it has tight balance to meet its contingent liabilities and other short-term obligations.

- During FY 2060/61, the cash and bank balance of the bank had increased whereas the current assets that comprises of investments, money at short call, cash and bank balance had decreased compared to that of previous year due to which the percentage of cash and bank balance has increased.
- Similarly, during FY 2062/63, the cash and bank balance of the bank has decreased drastically compared to that of previous years while the current assets of the bank have increased indicating that the investments of the bank has increased and also its earnings.
- During FY 2065/66, the ratio has significantly decreased indicating the lower cash and bank balance as compared to current assets. The ratio has reached in the second lowest position during the periods.

The mean ratio of cash and bank balance to current assets is 10.57, standard deviation is 3.36 on coefficient of variance is 0.32 fluctuation between cash and bank balance to current assets is 0.32. From the above, we can conclude that due to low cash and bank balance, the bank might be having difficulties in meeting its current obligations. Thus, the bank has to focus on its earnings and then maintain sufficient amount in cash and bank balance both in NOSTRO and NRB accounts so that it may save its interest on borrowings and also be able to meet its current obligations when need arises.

### 4.2.3 Fixed Deposits to Total Deposits

A fixed deposit is one where a customer is required to keep a fixed amount with bank for a specific period generally by those who do not need money for stipulated period. The bank pays a higher interest on such deposits. The ratio of fixed deposit to total deposits measures the percentage of fixed deposits in total deposits of the bank. It is calculated as follows:

$$\text{Fixed Deposit to Total Deposit} = \frac{\text{Fixed Deposit}}{\text{Total Deposit}}$$

**Table No. 4.3**  
**Fixed Deposits to Total Deposits**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
Fixed Deposits	1174.18	1958.06	1347.09	1143.04	2083.06	2930.62	4064.50
Total Deposits	2025.50	3575.83	3165.32	3144.32	5146.46	6241.38	8765.95
<b>Ratio in %</b>	<b>57.97</b>	<b>54.76</b>	<b>42.56</b>	<b>36.35</b>	<b>40.48</b>	<b>46.95</b>	<b>46.37</b>
<b>Mean</b>	<b>46.44</b>						
<b>S.D. (<math>\sigma</math>)</b>	<b>7.68</b>						
<b>C.V.</b>	<b>0.16</b>						

Source: Annual Reports of NIC Bank

From the above table 4.3, we can see that during its early years of establishment, the bank had huge amount of fixed deposits because of high interest rates compared to others as the bank wanted to accumulate funds. The percentage of 57.97 percent and 36.35 percent are the highest and lowest among all.

- As mentioned earlier, the bank had huge amounts in its fixed deposits, which is almost to 56 percent of total deposits on average during FY 2058/59 and 2059/60. It further indicates that the bank's interest expenses in its deposits were high because of the high interest rates in fixed deposits.
- However, the fixed deposits continuously started to drop below the 50 percent till 2061/62 marks because of reduction in interest rates on fixed deposits, which was a trend among all the banks in Nepal because of high liquidity in the market. However during FY 2063/64, the percentage has increased again as this indicates that the fixed deposit of the bank has increased.

- During FY 2064/65 and 2065/66, the fixed deposit has gradually increased and has been able to maintain at constant level of 46 percent. This is due to the favorable interest rate provided by the bank on fixed deposits.

The average mean rate is 46.44, standard deviation is 7.68 and coefficient of variation is 0.16. So the fluctuation between fixed deposits to total deposit is 0.16. In conclusion, we can figure out that the bank is going as per the market trend and making continuous reduction in interest rates in its deposits. However, the bank should have enough deposits so that it can make investments smoothly and for this it is better to have fixed deposits than savings though the interest is comparatively high to other deposits because of time restrictions to the depositors.

#### 4.2.4 Savings Deposits to Total Deposits

The saving deposit is one of the deposits collected from small depositors and low-income depositors. The bank usually pays small interest to the depositors against their deposits. The ratio measures the percentage of savings in total deposits. The ratio is computed as

$$\text{Savings Deposits to Total Deposits} = \frac{\text{Savings deposits}}{\text{Total deposits}}$$

**Table No. 4.4**  
**Savings Deposits to Total Deposits**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
Savings Deposits	356.29	525.97	576.19	734.09	1280.47	2024.26	2797.42
Total Deposits	2025.50	3575.83	3165.32	3144.32	5146.46	6241.38	8765.95
<b>Ratio in %</b>	<b>17.59</b>	<b>14.71</b>	<b>18.20</b>	<b>23.35</b>	<b>24.88</b>	<b>32.43</b>	<b>31.91</b>
<b>Mean</b>	<b>23.29</b>						
<b>S.D. (<math>\sigma</math>)</b>	<b>6.98</b>						
<b>C.V.</b>	<b>2.88</b>						

Source: Annual Reports of NIC Bank

From the above table 4.4, we can find out that the percentage of savings deposit has increased continuously if we exclude the FY 2060/61 where it has dropped to 3 percent below the previous year. The purpose of savings deposits is to encourage the habit of

saving among the common people and institutions. Savings deposits attract interest, which is normally less than that of long-term deposit but more than that of short-term deposit.

- During FY 2059/60, the percentage of savings deposits to total deposits has decreased due to increase in other deposits despite increase in savings deposits.
- If we see the figures of consecutive years then after FY 2059/60, the savings deposits have continuously increased whereas the total deposit has decreased during FY 2061/62 and increase in FY 2063/64. It also indicates that the total deposit, which comprises of interest bearing and non-bearing interest deposit is increasing continuously despite the reduction in interest, which is considered good because the bank is utilizing its low cost fund.
- Analyzing the pattern of deposits, the total deposits seem to have increased with the increase in savings deposits, however, the total deposits consists of interest bearing and non-interest bearing deposits. The other deposits rather than saving deposits contribute more to increase the total deposits resulting the lower ratio as in the fiscal year 2064/65.

The average mean is 23.29 standard deviation 6.98, coefficient of variation is 2.88. So the change ration between saving deposit to total deposit is 6.98 which is indicated by coefficient of variance. Hence, it can be concluded that the bank is increasing its low cost fund continuously and thus its interest expenses have decreased. Similarly, the total deposit is in increasing trend and it may be due to non interest bearing accounts in margin accounts of LC and guarantee.

#### **4.2.5 Total Risk Assets to Total Current Assets**

The total risk assets comprises of total lending of the bank either in short term or long term lending excluding the investment made on common shares and government securities. Similarly, the current assets of the bank include cash and bank balance, money at call and short notice, risk assets, investments, interest receivables within 30 days. The ratio measures the percentage of risk assets in the current assets of the bank.

The ratio is computed as follows:

$$\text{Total Risk Assets to Total Current Assets} = \frac{\text{Total risk assets}}{\text{Total current assets}}$$

**Table No. 4.5**  
**Total Risk Assets to Total Current Assets**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
Total Risk Assets	1655.51	2617.76	2279.00	2419.52	3561.14	4711.71	6655.96
Total Current Assets	2518.65	4117.78	3632.21	3902.13	5358.27	7063.77	9611.60
<b>Ratio in %</b>	<b>65.73</b>	<b>63.57</b>	<b>62.74</b>	<b>62.01</b>	<b>66.46</b>	<b>66.70</b>	<b>69.25</b>
<b>Mean</b>	<b>65.20</b>						
<b>S.D. (<math>\sigma</math>)</b>	<b>2.56</b>						
<b>C.V.</b>	<b>0.04</b>						

*Source: Annual Reports of NIC Bank*

From above table 4.5, we can see that the percentage of risk assets in total current assets is less fluctuating during all the fiscal years. The total risk assets and current assets of the bank are at increasing trend since 2061/62. The total risk assets include cash credit, overdrafts, bills discounted and purchase while the current assets includes risk assets, cash and bank balance, money at call and short notice, interest receivables within 30 days etc. Higher the ratio better is the management of its current assets and vice-versa.

- During FY 2060/61, the ratio has decreased which is due to higher increment in current assets compared to increase in risk assets.
- Then after till FY 2065/66, the ratio has improved indicating that the bank has smooth investments in risk assets, which have high percentage in total income of the bank because the risk assets have high lending interest rates, and thus the return is high.

The average mean ratio is 65.20, standard deviation is 2.56 and coefficient of variance is 0.04. So the fluctuation ratio between total risk assets to total current assets is 0.04. Thus, we can conclude that the bank's risk asset is increasing which can be considered a good sign regarding the earning but the care has to be taken by the management to make investments in good loans and monitor the investments in an efficient ways through its staff such that the loan do not turn into non performing assets.

### **4.3 Activity/Efficiency**

Activity ratios are employed to evaluate the efficiency with which the bank manages and utilizes its assets. The fund of depositors and owners are invested in various assets to generate profits. The better the management of assets, the higher the amount of profits. These ratios are also called turnover ratios because they indicate the speed with which assets are being converted or turned over into income.

Though, there are several activity ratios to judge the effectiveness of asset utilization, only the following ratios are analyzed:

- a. Risk Assets to Total Deposits
- b. Risk Assets to Savings, Fixed and Call & Short Deposits
- c. Staff Costs to Total Operating Costs
- d. Total Costs to Gross Income
- e. Total Shareholder's Equity to Total Risk Assets
- f. Loan and Advance to Total Deposit
- g. Loan and Advance to Total Assets
- h. Total Investment to Total Deposit

#### **4.3.1 Risk Assets to Total Deposits**

The ratio of risk assets to total deposits measures the extent to which the bank is successfully utilizing the outsiders' funds for the profit generating purpose. In other words, the ratio measures the bank's ability to utilize the deposits that includes interest bearing and non-interest bearing accounts in making investment in risk assets. This ratio is calculated as follows:

$$\text{Risk Assets to Total Deposits} = \frac{\text{Risk assets}}{\text{Total deposits}}$$

**Table No. 4.6**  
**Risk Assets to Total Deposits**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
Risk Assets	1655.51	2617.76	2279	2419.52	3561.14	4711.71	6655.96
Total Deposits	2025.5	3575.83	3165.32	3144.32	5146.46	6241.38	8765.95
<b>Ratio in times</b>	<b>0.82</b>	<b>0.73</b>	<b>0.72</b>	<b>0.77</b>	<b>0.69</b>	<b>0.75</b>	<b>0.76</b>
<b>Mean</b>	<b>0.74</b>						
<b>S.D. (<math>\sigma</math>)</b>	<b>0.04</b>						
<b>C.V.</b>	<b>0.06</b>						

*Source: Annual Reports of NIC Bank*

From the above table 4.6, we can see that the risk assets have been increased smoothly excluding the FY 2060/61 where RA has reduced which may be due to swapping of loans by other banks or settlement of NPA.

- The ratio during all the seven years from FY 2059/60 to FY 2065/66 is comparatively at similar level thus indicating that the total deposits and the RA of the bank has gone similar level of change. The higher ratio indicates that use of most of the funds from its deposits in risk assets.
- With the average ratio of 0.75 in the fiscal years, the bank is attempting to maintain its lending in risk assets. However, the NPA is increasing with more loan loss provisions.

The average mean of ratio is 0.74, standard deviation is 0.04 and coefficient of variance is 0.06. So the fluctuation ratio between risk assets to total deposits is 0.06. During FY 2063/64, the ratio is lowest of all, which is due to the high percentage increase in the total deposits to lower percentage increase in RA. The total deposits rose because of the recent launching of the NIC Life Savings Premium Account with 5 percent interest rate, however, the bank has not been able to utilize the deposits in the risk assets properly. The lower ratio indicates the non-utilization of its funds in risk assets.

Hence, it can be concluded that the bank is utilizing its sources of funds mostly from the deposits and that the bank is able to make its investments smoothly. So, the bank should be able to increase its deposits in coming years and similarly increase its investments.

### 4.3.2 Risk Assets to Savings, Fixed, Call and Short Deposits

The ratio of risk assets to savings, fixed, call and short deposits measures the efficiency of NIC on its investments out of interest bearing sources of funds. It measures the ability of the bank management to invest in risk assets, which generally should exceed 60 percent. This ratio indicates about what proportion of these deposits is utilized to invest in risk assets. Since the deposits are interest bearing, the bank should be able to utilize these funds in higher return investments so that it is able to cover its interest expenses on such deposits. This ratio is calculated as follows:

Risk Assets to Savings,

$$\text{Fixed, Call \& Short Deposits} = \frac{\text{Risk assets}}{\text{Savings, fixed, call and short deposits}}$$

**Table No. 4.7**  
**Risk Assets to Savings, Fixed, Call & Short Deposits**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
Risk Assets	1655.51	2617.76	2279	2419.52	3561.14	4711.71	6655.96
Savings, Fixed and Call	1749.98	3281.15	2866.16	2843.19	4779.77	5944.79	8321.14
<b>Ratio in times</b>	<b>0.95</b>	<b>0.80</b>	<b>0.80</b>	<b>0.85</b>	<b>0.75</b>	<b>0.79</b>	<b>0.80</b>
<b>Mean</b>	<b>0.82</b>						
<b>S.D. (<math>\sigma</math>)</b>	<b>0.06</b>						
<b>C.V.</b>	<b>0.8</b>						

From the above table 4.7, we can see that the ratio is between 0.75 to 0.95. The risk assets depends upon the funds of the bank and the bank accumulates those funds from the customers to whom it facilitates with different deposit accounts like savings, fixed, call and short deposits to its depositors with different interest rates.

- Since in FY 2059/560, the deposits in savings, fixed, call and short deposits have increased because of the higher interest in those accounts compared to others in order to accumulate the high volume of deposits. However, the RA of the bank has not increased with similar level to that of deposits and thus the ratio has decreased. The lowest ratio means the management hesitated to invest its fund on risk assets, rather it preferred to invest in non-risk assets i.e. governments securities and other bonds.

- The ratio of 0.95 is the highest among all as during this year the bank was able to use its sources of funds mostly in the risk assets compared the business prospects was good and mostly the bank tried to solicit more business from the market with lower interest rates. The highest ratio means the management has invested most of its fund available from interest bearing deposits on risk yielding higher return investments.
- The bank is retaining its ratio in its previous levels' ratio during FY 2063/64 - FY 2064/65. The significant step is taken by the management by increasing its investment in risk assets. However, it should be noted that the NPA should not increase as it is seen in the bank's annual financial reports.

The average mean ration is 0.82, standard deviation is 0.06 and coefficient of variance is 0.08. So, the fluctuation ratio between risk assets to saving, fixed, call and short deposits is 0.08. Hence, from the above we can conclude that despite the increase in deposits, the bank was not able to invest its funds in risk assets. Therefore, the bank should be able it use its sources of funds such that investments provide high return which is the ultimate target of the management.

#### 4.3.3 Staff Costs to Total Operating Costs

The ratio of staff costs to total operating costs measures the proportion of expenses made by bank on its staff out of its operating costs. The ratio is calculated by applying following formula:

$$\text{Staff Costs to Total Operating Costs} = \frac{\text{Staff costs}}{\text{Total operating costs}}$$

**Table No. 4.8**  
**Staff Costs to Total Operating Costs**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
Staff Costs	18.78	29.15	27.93	38.52	45.98	57.30	59.23
Total Costs	147.54	266.72	321.36	278.37	313.02	346.12	508.19
<b>Ratio in Times</b>	<b>0.13</b>	<b>0.11</b>	<b>0.09</b>	<b>0.14</b>	<b>0.15</b>	<b>0.17</b>	<b>0.12</b>
<b>Mean</b>	<b>0.13</b>						
<b>S.D. (σ)</b>	<b>0.03</b>						
<b>C.V.</b>	<b>0.20</b>						

Source: Annual Reports of NIC Bank

There is no doubt that no management can run without its staff and for this the management has to motivate to get the work done with extra incentives, yearly trainings, performance bonus, promotions etc. For this the bank makes huge costs because without its staff, the management is not able to get the expected return, as they are the one to carry out the orders and get the work completed as expected by higher management. The above table 4.14, shows the ratio of staff costs and total costs. The total costs include interest on total deposits and borrowings, salaries and allowances to the staff including bonus, other general expenses, depreciation etc.

- Since FY 2059/60, the total costs include both operating and other expenses of the bank and it has been continuously increasing except in FY 2062/63 where it has reduced by 13.37 percent to that of FY 2060/61. The reason for continuous increase in total costs is because of growing number of staff, yearly increase in interest expenses because of deposits and borrowings and other general expenses.
- Similarly, the staff costs has also been continuously increasing except in FY 2062/63 where it has reduced by 4.18 percent, which is due to reduction in profit, which ultimately reduced the balance of yearly bonus and welfare of the staff. However, the ratio has been increasing yearly indicating the rise in staff costs that includes rise in salaries, allowances, bonus and welfare. Thus, we can conclude that the management of the bank has been able to motivate the staff and has been able to build a good team to reach its target with a team effort.
- The ratio of staff cost to total cost is seen the highest in FY 2064/65 while the staff costs is the highest in the FY 2064/65. The higher staff cost ratio satisfies the higher NPAT and well team work in the FY 2064/65.

The average mean ratio is 0.13, standard deviation is 0.03 and coefficient of variance is 0.20. So, the fluctuation ratio between staff costs to total operating costs is 0.20. Hence, it can be concluded that the staff costs of the bank is increasing every year thus indicating that the management is making a regular expenses for the staff that includes training, incentives, allowances etc. If the bank is able to motivate and train its staff, then there is no doubt that it can achieve its target.

#### 4.3.4 Total Costs to Gross Income

The ratio of total costs to gross income measures the cost control capacity of NIC from its gross income. In other words, the ratio indicates that the lower the ratio, the higher effective of cost control. The ratio is calculated as follows:

$$\text{Total Costs to Gross Income} = \frac{\text{Total costs}}{\text{Gross income}}$$

**Table No. 4.9**  
**Total Costs to Gross Income**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
Total Costs	147.54	266.72	321.36	278.37	313.02	346.12	508.19
Gross Income	40.49	77.47	15.89	49.39	103.68	172.38	146.87
<b>Ratio in times</b>	<b>3.64</b>	<b>3.44</b>	<b>20.22</b>	<b>5.64</b>	<b>3.02</b>	<b>2.01</b>	<b>3.46</b>
<b>Mean</b>	<b>5.91</b>						
<b>S.D. (σ)</b>	<b>3.01</b>						
<b>C.V.</b>	<b>0.51</b>						

*Source: Annual Reports of NIC Bank*

The gross income of the bank depends upon the total costs of the bank because if the bank is not able to minimize its total costs then the bank is sure to gain lower profit. The total costs include the interest expenses in deposits and borrowings, staff costs and other general expenses of the bank. So, if the bank is able to minimize its costs then it is able to earn more net profit, which is the ultimate target of the bank. The above table 4.15 gives clear view of the ratio between total costs and gross income.

- The ratio has decreased in FY 2060/61 while it has increased during FY 2061/62 compared to previous year's figure. Then after it has started to decrease thus indicating the effective cost control by the management.
- The ratio of 2.01 is the lowest among all and thus the gross income of the bank has increased compared to the previous of 10369 million. The lower ratio indicates the cost of control of the management and thus increases in gross profit of the bank.

- During FY 2061/62 and FY 2065/66, the bank had to make loan loss provisions, which reduced the gross profit, while there was increment in the total costs of the bank. The higher the ratio indicates the ineffectiveness of the management on its cost alarming the management of the bank shall be able to control the cost and thus increase its gross profit margin.

The average mean ratio is 5.91, standard deviation is 3.01 and coefficient of variance is 0.51. So the fluctuation ratio between total costs and gross income is 0.51. From the above table, the higher the ratio indicates the effectiveness of the management and vice versa. The management should be able to control the cost so as to earn higher profit margin. However, it is expected that the management of the bank shall be able to control the cost and thus increase its gross profit margin in coming years.

#### 4.3.5 Total Shareholder's Equity to Total Risk Assets

The ratio of total shareholder's equity to total assets measures the contribution of shareholders' equity on risk assets. In other words, this ratio helps to examine the percentage of shareholder's equity invested on risk assets. It is calculated as follows:

$$\text{Total Shareholder's Equity to Total Risk Assets} = \frac{\text{Total shareholder's equity}}{\text{Total risk assets}}$$

**Table No. 4.10**  
**Total Shareholder's Equity to Total Risk Assets**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
Shareholder's Equity	511.18	517.3	523.4	549.42	566.79	580.15	701.78
Total Risk Assets	1655.51	2617.76	2279	2419.52	3561.14	4711.71	6655.96
<b>Ratio in times</b>	<b>0.31</b>	<b>0.20</b>	<b>0.23</b>	<b>0.23</b>	<b>0.16</b>	<b>0.12</b>	<b>0.11</b>
<b>Mean</b>	<b>0.19</b>						
<b>S.D. (<math>\sigma</math>)</b>	<b>0.07</b>						
<b>C.V.</b>	<b>0.37</b>						

Source: Annual Reports of NIC Bank

The shareholders are the one that the bank is liable to pay the dividend as return on their investments made in the bank. It depends on the earning of the bank and the earning

depends upon the investments made by the bank. Thus, we can say that in order to increase the shareholder's equity the bank has to increase its investment in risk assets. From the above table 4.16, we can see that 0.11 is the lowest and 0.31 is the highest ratio between total shareholders' equity to total risk assets.

- In the initial years, one of the main sources of the fund was paid up share capital, share premium that is a part of shareholder's equity. The bank utilizes this source in the risk assets investments and thus during FY 2059/60, the ratio is the highest among all indicating the higher use of the shareholder's equity compared to the other years.
- Then after from FY 2061/62 till 2065/66, the ratio has been decreasing thus indicating that the bank has been utilizing lower part of the shareholder's equity in risk assets. However, both the figures have been increasing indicating the effective use of sources in risk assets on one hand and on the other, the rise in shareholders' equity indicates that the management is aware of increasing the shareholders' wealth which ultimately increases EPS and MVPS of the bank.

The average mean ratio is 0.19, standard deviation is 0.07 and coefficient of variance is 0.37. So the fluctuation ratio between total shareholder's equity to total risk assets is 0.37. Thus, we can conclude that despite the proportionate rise in both risk assets and shareholders' equity, the bank has not been utilizing the shareholders' equity as it is focused on the wealth maximization of the shareholder, which can be considered satisfactory.

#### **4.3.6 Loan and Advance to Total Deposit Ratio**

This ratio measures to the extent that bank is successful to manage its total deposit on loan and advances for the purpose of income generation or not. A high ratio indicates better mobilization of collected deposit and vice versa. But it should be noted that too high ratio might not be better from liquidity point of view.

$$\text{Loan and Advance to Total Deposit Ratio} = \frac{\text{Loan and Advances}}{\text{Total Deposit}}$$

**Table No. 4.11**  
**Loan and Advance to Total Deposit Ratio**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
Loan and Advances	1659.1	2368.85	2562.6	3743.09	4909.36	6902.12	9128.7
Total Deposit	2025.5	3575.83	3165.32	3144.32	5146.46	6241.38	8765.95
<b>Ratio in times</b>	<b>0.82</b>	<b>0.66</b>	<b>0.81</b>	<b>1.19</b>	<b>0.95</b>	<b>1.11</b>	<b>1.04</b>
<b>Mean</b>	<b>0.94</b>						
<b>S.D. (<math>\sigma</math>)</b>	<b>0.08</b>						
<b>C.V.</b>	<b>0.08</b>						

*Source: Annual Reports of NIC Bank*

From the above table explain the ratio between loan and advance to total deposit of NIC Bank over the 7 period from 2059/60 to 2065/66.

- The ratio are 0.82, 0.66, 0.81, 1.19, 0.95, 1.11, 1.04 in the fiscal year 2059/60, 60/61, 61/62, 62/63, 63/64, 64/65 and 65/66 respectively.
- The ratio of 1.19 is the highest among all as during this year the bank was able to use it's deposit mostly in loan and advance, which indicate the highly income from interest. Where 0.66 is the lowest in fiscal year 2060/61.
- Loan and above to total deposit ratio of NIC Bank is in increase trend in the fiscal year 2061/62 to 2062 to 2062/63, then more variation and less consistency in other's fiscal year ratio.

The average mean ratio is 0.94, standard deviation is 0.08 and coefficient of variance is 0.08. So, the fluctuation ratio between loan and advance to total deposit ratio is 0.08. Hence, from the above points, the bank reduce ratio of utilize of collected deposit in loan sector. Because high ratio might not be better from liquidity point of view so the bank does it.

#### **4.3.7 Loan and Advance to Total Assets Ratio**

Loa and advance to total assets ratio of any commercial bank represent the major portion in the volume of total working fund. This ratio measures the volume of loan advance in the structure of total assets high degree of this ratio indicates good performance of the bank in mobilizing its funds by way of lending funding. However in its reverse side, high degree of this ratio is repressed enactive of low liquidity ratio.

Granting of loan and advance always carries a certain degree of risk. Thus, this assets of banking business is regarded as risky assets. This ratio measures the management attitude toward risky assets. The low ratio is indicative of low productivity and high degree of safety in liquidity and vice-versa. The interaction between risk and return determines this ratio. This ratio also shows the credit risk taken by the bank towards mobilizing. It's funds into different types of assets. This ratio reflects the extent to which the banks are successful in mobilizing their total assets on loan and advance for the purpose of income generation.

$$\text{Loan and Advance to Total Assets Ratio} = \frac{\text{Loan and Advance}}{\text{Total Assets}}$$

**Table No. 4.12**  
**Loan and Advance to Total Assets Ratio**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
Loan and Advance	1659.1	2368.85	2562.56	3743.09	4909.36	6902.12	9128.7
Total Assets	2584.57	4247.77	3768.66	4037.50	5930.09	7510.40	10383
<b>Ratio in times</b>	<b>0.64</b>	<b>0.56</b>	<b>0.68</b>	<b>0.93</b>	<b>0.83</b>	<b>0.92</b>	<b>0.88</b>
<b>Mean</b>	<b>0.77</b>						
<b>S.D. (σ)</b>	<b>0.17</b>						
<b>C.V.</b>	<b>0.80</b>						

*Source: Annual Reports of NIC Bank*

From the above table we can see ratio of the bank is 0.56 to 0.93 times, during all the years indicating that the loan and advance and the total assets has increased/decreased in the different ratio. However, higher ratio indicates proper utilization of its financial resources on risk assets while lower ratio indicates poor utilization of its resources on higher profitability assets.

- The loan and advance has been increasing every year if we exclude the FY 2060/061, where the loans and advance has decrease.
- Similarly if we see the total assets figure, there has been decline during fiscal year 2061/62 and 2062/63 which resulted in the higher ratio as the loan and advance was increasing during these year.

- Here the highest ratio is the 0.93 among all as during this year the bank was able to achieve high productivity in high risk. The ratio of 0.56 is the lowest ratio among all, where the value of loan and advance was highly decreased.

The average mean ratio is 0.77, standard deviation is 0.17 and coefficient of variance is 0.80. So the fluctuation ratio between loan and advance to total assets ratio is 0.80. Hence, from the above table, we can conclude the despite increase in total assets the bank wasn't able to invest its funds in risk assets. Assets management in terms of loan and advances of the bank is not so good because of below the

#### 4.3.8 Total Investment to Total Deposit Ratio

A commercial bank may mobilize its investing its fund in different securities issued by government and other financial and non-financial companies. Effort has been made to measure the extent to which the banks are successful in mobilizing the total deposit on investment. A high ratio is the indicator of high success to mobilize the banking fund investment and vice versa.

$$\text{Total Investment to Total Deposit Ratio} = \frac{\text{Total Investment}}{\text{Total Deposit}}$$

**Table No. 4.13**  
**Total Investment to Total Deposit Ratio**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
Total Investment	302.28	567.08	753.81	1153.25	1760.72	1572.9	2429.91
Total Deposit	2025.5	3575.83	3165.32	3144.32	5146.46	6241.38	8765.95
<b>Ratio in times</b>	<b>0.15</b>	<b>0.16</b>	<b>0.24</b>	<b>0.367</b>	<b>0.34</b>	<b>0.25</b>	<b>0.28</b>
<b>Mean</b>	<b>0.25</b>						
<b>S.D. (<math>\sigma</math>)</b>	<b>0.08</b>						
<b>C.V.</b>	<b>0.33</b>						

Source: Annual Reports of NIC Bank

From the above table, we can figure out that 0.367 is the highest and 0.15 ratio is he lowest among all it indicate that the decrease total deposit, increase in ratio.

- The total investment of bank is increasing trend exclude fiscal year 2064/65, where total deposit of bank is increase.
- During fiscal year 2063/64 to 2065/66, the total deposit has significantly increased, comparing with previous years.

The average mean ratio is 0.25, standard deviation is 0.08 and coefficient variation is 0.33. So the fluctuation ration between total investments to total deposit ratio is 0.33. From the above, we can conclude that, bank is in the progressing path every year with increase invest of deposit in different sector which indicate high earning ratio.

### **Lending Efficiency Ratio**

The efficiency of a firm depends to a large extent on the efficiency with which its assets are managed and utilized. This ratio is concerned with measuring the efficiency of bank. This ratio also shows the utility of available fund. The following are the various type of lending efficiency ratios:

#### **(i) Non-Performing Loan to Total Loan and Advance Ratio**

NRB has directed all the commercial bank create loan loss provision against the doubtful and bad debts. But both of our concerned banks have not provided data on non-performing loan in balance sheet and profit and loss account.

$$\text{Non-performing Loan to Loan \& Advance Ratio} = \frac{\text{Non Performing Loan}}{\text{Total loan and advance}}$$

**Table No. 4.14**

#### **Non-Performing Loan to Total Loan and Advance Ratio**

<b>FY</b>	<b>2059/060</b>	<b>2060/061</b>	<b>2061/062</b>	<b>2062/063</b>	<b>2063/064</b>	<b>2064/065</b>	<b>2065/066</b>
NPL	241.62	130.02	195.04	181.2	280.5	272.5	421.97
Total L. & Ad.	1659.1	2368.85	2562.56	3743.09	4909.36	6902.12	9128.7
Ratio (%)	0.085	0.055	0.076	0.048	0.057	0.039	0.0462
<b>Mean</b>	<b>0.06</b>						
<b>S.D. (σ)</b>	<b>0.02</b>						
<b>C.V.</b>	<b>0.29</b>						

From the above described the non-performing loan to total loans advances ratio of NIC bank over the seven years period from 2059/060 to 2065/066. The ratios are ratio between 0.085 to 0.039.

- During FY 2059/060, the total loan and advance is lowest where as the ratio is highest.
- Similarly, during FY 2064/065 the ratio is lowest among all ratios which is 0.039.

The average mean ratio is 0.06, standard deviation is 0.02 and coefficient of variance is 0.29. So the fluctuation ration between the non-performing loan and total loan and advance ratio is 0.29.

**(ii) Loan loss provision to Total Loan and Advance Ratio**

Loan loss provision to total loan and Advance describes the quality assets that a bank holding. The provision for loan loss reflects the increasing probability of non-performing loan. The provision of loan mean the net profit of the banks will come down by such amount. Increase in loan loss provisions decrease in profit result to decrease in dividends but it's positive impact is that strengthens financial conditions of the bank by controlling the credit risk and reduced the risks related deposits. So it can said that loan suffer it only for short term while the good financial conditioned and a safety of loan will make bank's prosperity resulting increasing profits for long term. The low ratio indicates the good financial condition and safety of loans will make banks prosperity resulting increasing profits for long term. The low ratio indicators the good quality of assets in total volume of loan and advance. High ratio indicates more risky assets in total volume of loan and advance.

**Table No. 4.15  
Loan Loss Provision to Total Loan and Advance Ratio**

<b>FY</b>	<b>2059/060</b>	<b>2060/061</b>	<b>2061/062</b>	<b>2062/063</b>	<b>2063/064</b>	<b>2064/065</b>	<b>2065/066</b>
NPL	18.82	32.34	89.85	143.34	181.95	197.64	246.16
Total L. & Ad.	1659.1	2368.85	2562.56	3743.09	4909.36	6902.2	1928.7
Ratio (%)	0.0113	0.0136	0.035	0.0383	0.037	0.029	0.097
<b>Mean</b>	<b>0.04</b>						
<b>S.D. (σ)</b>	<b>0.03</b>						
<b>C.V.</b>	<b>0.72</b>						

From the above table we can see ratio between loan loss provision to total loan and advance during the seven year.

- During FY 2059/060 there is lowest ratio which is 1.13 percent any during FY 2065/066 that is highest ratio among all year is 9.7.
- The ratio of bank is in continuously increase expect FY 2064/065.

The average mean ratio is 0.04, standard deviation is 0.03 and coefficient of variance is 0.72. So the fluctuation ration between loan loss provision to total loan and advance ratio is 0.72. In conclusion, we can figure out that the reason indicators more risky assets into the volume of loan and advance. So, the bank has not effective credit policy. Because the ratio go on increasing trend.

#### **4.4 Profitability Ratio**

The profitability ratios are calculated to measure the operating efficiency of the firm. Creditors want to get interest and repayment of principal regularly. Owners' want to get a required rate of return on their investment (*Pandey; 1999:130*). This is possible only when the firm earns enough profits.

Generally, two major types of profitability ratios are calculated:

- Profitability in relation to sales
- Profitability in relation to investment

However, only profitability in relation to investment is only analyzed in this research work. Following are the ratios in relation to investment in banking sector:

- Return on Risk Assets
- Return on Equity (ROE)
- Earning Per Share (EPS)
- Price Earning Ratio (P/E ratio)
- Return on Total Assets
- Interest earned on Total Assets

##### **4.4.1 Return on Risk Assets**

The term risk assets refers to bank's investments on cash credit, short term & long term loan, retail lending etc. The ratio of return on risk assets is useful in measuring the

profitability of all financial resources invested in the banks risk assets. The formula to measure the ratio is as follows:

$$\text{Return on Risk Assets} = \frac{\text{Net profit after tax (NPAT)}}{\text{Total risk asset}}$$

**Table No. 4.16**  
**Return on Risk Assets**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
NPAT	24.30	48.29	6.82	26.06	68.23	113.76	96.59
Total RA	1655.51	2617.76	2279.00	2419.52	3561.14	4711.71	6655.96
<b>Return on RA</b>	<b>1.47</b>	<b>1.84</b>	<b>0.30</b>	<b>1.08</b>	<b>1.92</b>	<b>2.41</b>	<b>1.45</b>
<b>Mean</b>	<b>1.50</b>						
<b>S.D. (σ)</b>	<b>0.68</b>						
<b>C.V.</b>	<b>0.45</b>						

*Source: Annual Reports of NIC Bank*

From the above table, we can see that the percentage of return on risk assets had been nominal during FY 2061/62. Besides, the bank has been able to make net income in increasing trend. The net profit has increased to 77 percent compared to that of FY 2062/63 indicating the effective use of sources in good loans and reduction in operating expenses. The total risk assets of the bank are in increasing trend and similarly, the net profit has also increased efficiently. The total risk assets include cash credit, overdrafts, bills discounted and purchase.

- Higher ratio indicates more investments on risk assets from the financial resources available.
- Lower ratio indicates less investment on risk assets from the financial resources available.
- The net profit of the bank has decreased during FY 2061/62 because of the loan loss provision, which was amended during this year. As per the NRB regulations the time period of the NPA was also shortened due to which the bank had to make huge provisions from operating profit accordingly.
- The excess loan loss provision has decreased the net profit in FY 2065/66 and accordingly has decreased the return on risk assets.

The average mean ratio is 1.50, standard deviation is 0.68 and coefficient of variance is 0.45. So the fluctuation ration between return on risk assets is 0.45, which is recognized by coefficient of variance.

#### 4.4.2 Return on Equity (ROE)

Common shareholders are entitled to the residual profits. The rate of dividend is not fixed; the earnings may be distributed to shareholders or retained in the business. Nevertheless, the net profit after tax represents the return. A return on shareholder's equity is calculated to see the profitability of owners' investments. The shareholder's equity or net worth will include paid-up share capital, share premium and reserves and surplus less accumulated loss (*Van Horne, 2002:361*). The return on shareholders' equity is net profit after taxes divided by shareholders' equity.

$$\text{ROE} = \frac{\text{NPAT}}{\text{Net worth}}$$

**Table No. 4.17**  
**Return on Equity**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
NPAT	24.30	48.29	6.82	26.06	68.23	113.76	96.59
Net Worth	511.71	519.13	526.09	552.09	570.4	584.2	706.46
<b>ROE</b>	<b>4.75</b>	<b>9.30</b>	<b>1.30</b>	<b>4.72</b>	<b>11.96</b>	<b>19.47</b>	<b>13.67</b>
<b>Mean</b>	<b>9.31</b>						
<b>S.D. (σ)</b>	<b>5.21</b>						
<b>C.V.</b>	<b>0.56</b>						

*Source: Annual Reports of NIC Bank*

ROE indicates how well the firm has used the resources of owners. In fact, this ratio is one of the most important relationships in financial analysis. This ratio is, thus, of great interest to the present as well as the prospective shareholders and also of great concern to the management, which has the responsibility of maximizing the owner's welfare.

- From the above table 4.7, we can see that the net profit of the bank has reduced once during FY 2061/62 due to restructure and amendment on the NRB regulations regarding the loan loss provisions.
- However, the bank is able to earn net profit then after in increasing trend indicating the effective use of funds and cost reduction in operating and other expenses.
- Similarly, the net worth of the bank is increasing every year indicating the shareholders' wealth maximization. However, the bank has distributed 10% dividend only once since its establishment because it has retained earnings for its future course of actions like opening of branch, to increase its capital etc.
- The ROE is seen the highest in the FY 2064/65 as the NPAT has increased significantly and the Net Worth has increased slightly.
- During the FY 2065/66, ROE has dropped to 13.67 percent which indicates the significant decrease in NPAT and significant increase in Net worth. During this fiscal year, the issue of bonus shares results the following outcome.

The average mean ratio is 9.31, standard deviation is 5.21 and coefficient of variance is 0.56. So the fluctuation ratio between return on equity is 0.56 which is denoted by coefficient of variance. Hence, it can be concluded that the net worth of the bank is satisfactory and that the shareholder wealth is also maximizing despite there is no dividend distributed to the shareholder's regularly. Since, the bank is in the progressing path every year with increasing profit, the management of the bank distribute dividend in coming years so that the shareholder's need not to worry about their part of income as the MPS is also increasing which can be considered satisfactory.

#### **4.4.3 Earning Per Share (EPS)**

EPS indicates whether or not the firm's earnings on per share basis have changed over that period. EPS simply shows the profitability of the firm on a per share basis; it does not reflect how much is paid as dividend and how much is retained in the business.

$$\text{EPS} = \frac{\text{Profit after tax (PAT)}}{\text{No. of shares outstanding}}$$

**Table No. 4.18**  
**Earning Per Share**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
NPAT	24.30	48.29	6.82	26.06	68.23	113.76	96.59
No. of Shares	4.92	4.997	4.998	4.999	4.999	5.00	6.00
<b>EPS</b>	<b>4.94</b>	<b>9.66</b>	<b>1.36</b>	<b>5.21</b>	<b>13.65</b>	<b>22.75</b>	<b>16.10</b>
<b>Mean</b>	<b>10.52</b>						
<b>S.D. (<math>\sigma</math>)</b>	<b>7.47</b>						
<b>C.V.</b>	<b>0.71</b>						

*Source: Annual Reports of NIC Bank*

Higher the ratio better is the EPS, which is a good sign both from investors' point of view and the management's point of view as it adds some value to the organization if it continues to rise upward and vice versa.

- If we see the above table 4.8, we can see that the no. of shareholders has increased and further the EPS too has increased which is due to the increase in PAT.
- During FY 2059/60 and 2060/61, the PAT has increased with the increase in risk assets as the major source of the income comes from the interest on its RA.
- But during FY 2061/62, due to NRB regulations regarding NPA and loan loss provision, the PAT has decreased and thus there was reduction in the ratio.
- However, the EPS has started to increase since FY 2062/63 with greater income despite the increase in number of shareholders.
- The high NPAT with the constant equity holder results the best EPS in the FY 2064/65. It shows the best profitability position along with the maximization of shareholders fund.
- The issue of bonus shares in the FY 2064/65 increases the equity holder claims on NPAT and thus results the lower EPS as compared to FY 2063/64.

The average mean ratio is 10.52, standard deviation is 7.47 and coefficient of variance is 0.71. So the fluctuation ratio between earning per share is 0.71. Thus, it can be concluded that despite the cutthroat competition between the commercial banks to retain the business, the EPS of the bank has been increasing. Though the bank has not distributed the dividend regularly, at least from shareholder's point of view the EPS has been increasing year after year thus indicating the effective use of deposit portfolio in the risk assets and its return.

#### 4.4.4 Price Earnings Ratio (P/E Ratio)

The price earnings ratio is widely used by the security analysis to value the firm's performance as expected by investors. It indicates investors' judgment or expectations about the firm's performance. Management is also interested in this market appraisal of the firm's performance and will like to find the causes if the P/E ratio declines. P/E ratio reflects investors' expectations about the growth in the firm's earnings.

The reciprocal of the earnings yield is called the price-earnings (P/E) ratio. Thus,

$$\text{P/E Ratio} = \frac{\text{Market value per share}}{\text{Earning per share}}$$

**Table No. 4.19**  
**Price Earnings Ratio**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
Market Value Per Share	550.00	399.00	245.00	220.00	218.00	390.00	496.00
EPS	4.94	9.66	1.36	5.21	13.65	22.75	16.10
<b>P/E Ratio</b>	<b>111.34</b>	<b>41.30</b>	<b>180.15</b>	<b>42.23</b>	<b>15.97</b>	<b>17.14</b>	<b>30.81</b>
<b>Mean</b>	<b>66.70</b>						
<b>S.D. (<math>\sigma</math>)</b>	<b>60.28</b>						
<b>C.V.</b>	<b>0.96</b>						

*Source: Annual Reports of NIC Bank*

From the above table, we can see that there has been fluctuation in the P/E ratio, which indicates that the investors are hesitating to buy or hold the shares, as the MVPS is reducing every year.

- During FY 2059/60, the share market was doing well because the trend on investments on shares of the company and more or less every firm were doing well. Thus, as soon as the bank floated its shares in the market, the price went up which ultimately increased its P/E ratio.
- Then after from FY 2059/60 to 2062/63, the ratio continuously decreased thus alarming the management of the bank to trace out the reasons behind. However, due to primitive stage of stock market, most of the investors were unaware of its movement and thus the shares of most companies started to fall which also affected the MVPS of the bank.
- P/E Ratio has been gradually increasing from the FY 2063/64 onwards. It shows the positive signaling effect in the stock market.

The average mea ratio is 62.70, standard deviation is 60.28 and coefficient of variance is 0.96. So the fluctuation ration between price earning ratio is 0.96. Though the MVPS of the bank has been decreasing, the EPS of the firm has been increasing which is a positive sign for the investors but the management should be aware of the fact and should concentrate to increase the MVPS. This will make investors positive towards the organization as a result of which the bank shall able to solicit more business from the market, which ultimately results in greater earning of the bank.

Thus, the management of the bank should be careful on the P/E ratio and should take necessary steps for making better lending prospects, as this would create greater profit margin and high MVPS in the years to come.

#### 4.4.5 Return on Total Assets

The ratio of return on total assets measures the success and failure to utilize the total assets. This ratio judges effectiveness in using the pool of funds, which is useful to measure the profitability of all the financial resources, invested in the firm's assets. Higher the ratio better is the financing position.

It is computed by using the following formula:

$$\text{Return on Total Assets} = \frac{\text{NPAT}}{\text{Total assets}}$$

**Table No. 4.20**  
**Return on Total Assets**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
NPAT	24.30	48.29	6.82	26.06	68.23	113.76	96.59
Total Assets	2584.57	4247.77	3768.66	4037.50	5930.09	7510.40	10383.60
<b>Return on Total Assets</b>	<b>0.94</b>	<b>1.14</b>	<b>0.18</b>	<b>0.65</b>	<b>1.15</b>	<b>1.51</b>	<b>0.93</b>
<b>Mean</b>	<b>0.93</b>						
<b>S.D. (σ)</b>	<b>0.42</b>						
<b>C.V.</b>	<b>0.45</b>						

*Source: Annual Reports of NIC Bank*

From the above table 4.10, we can figure out that the ratio of return on total assets is satisfactory during FY 2059/60 and 2062/63 as compared to others. Higher the ratio better is use of its sources and vice-versa.

- During FY 2060/61, both the NPAT and TA of the bank have increased compared to the previous year due to which the ratio has increased to 1.14.
- However, during FY 2061/62 due to change in loan loss provisions as per the NRB regulations, the NPAT of the firm decreased which resulted in the decline of the ratio.
- But from FY 2062/63, the NPAT and TA of the bank has again started increasing. Thus, it resulted in the higher ratio of the firm indicating the effective use of the total assets.
- In the FY 2064/65 the ROTA of 1.51 percent is the highest than all other Fiscal years. On the other, it has decreased significantly and dropped by 0.58 percent in the FY 2065/66. In the FY 2065/66, the NPAT has decreased due to high NPA and higher loan loss provision. It reflects the poor management of earning assets.

The average mean ratio is 0.93, standard deviation is 0.42 and coefficient of variance is 0.45. So the fluctuation ratio between the return on total assets is 0.45. Hence, we can conclude that higher the ration the better is the earning of the bank and the effective use of its sources of the funds. Thus, the management should be careful to make prospective investments on total assets that include risk assets, current assets, fixed assets and investments on securities.

#### **4.4.6 Interest Earnings on Total Assets**

The ratio of total interest earned to total assets measures the earning capacity of NIC from the investment on total assets. The total assets comprise of current assets, fixed assets and investments in common shares & government securities. This ratio measure s the interest earnings on its total investments and shows the effectiveness of the bank management in using its sources of funds in profitable and reliable ventures. It is computed as follows:

$$\text{Interest Earning on Total Assets} = \frac{\text{Interest earnings}}{\text{Total assets}}$$

**Table No. 4.21**  
**Interest Earnings on Total Assets**

(NPR in Million)

<b>Fiscal Year</b>	<b>2059/60</b>	<b>2060/61</b>	<b>2061/62</b>	<b>2062/63</b>	<b>2063/64</b>	<b>2064/65</b>	<b>2065/66</b>
Interest Earnings	155.36	294.22	297.76	291.14	363.04	457.61	579.98
Total Assets	2584.57	4247.77	3768.66	4037.50	5930.09	7510.40	10383.60
<b>Ratio in %</b>	<b>6.01</b>	<b>6.93</b>	<b>7.90</b>	<b>7.21</b>	<b>6.12</b>	<b>6.09</b>	<b>5.59</b>
<b>Mean</b>	<b>6.55</b>						
<b>S.D. (<math>\sigma</math>)</b>	<b>0.82</b>						
<b>C.V.</b>	<b>0.12</b>						

*Source: Annual Reports of NIC Bank*

From the above table, we can see that the ratio of the bank is between 6% to 7% during all the years indicating that the earnings and the total assets of the bank has increased/decreased in the similar ratio. However, higher ratio indicates proper utilization of its financial resources on risk assets while lower ratio indicates poor utilization of its resources on higher profitable assets.

- The interest earnings of the bank depend on investments on the risk assets and the interest rates on those risk assets. The earning has been increasing every year if we exclude the FY 2062/63, where the earning has decreased with a nominal margin otherwise the interest earning has always increased.
- Similarly, if we see the total assets figure, there has been decline during FY 2060/61 to FY 2062/63, which resulted in the higher ratio as the interest earning was increasing during these years.
- The decline in the total assets figure is due to the decrease in the value of fixed assets, current assets and reduction in the investments of risk assets as the management focused it's lending in less risky assets and concentrated to recover its bad loans.
- Increase in loan loss provision in the FY 2065/66 results the lower NPAT in comparison to 2064/65. More loan loss provision depicts the turning of loans into NPA which certainly earns low interest.

The average mean ratio is 6.55, standard deviation is 0.82 and coefficient of variation is 0.12. So the fluctuation ratio between interests on total assets is 0.12. Hence, it can be concluded that the ratio is a bit steady compared to other ratios thus indicating the effective use of sources of funds and the return on the investments is smooth.

## 4.5 Correlation Analysis

The correlation of coefficient shows the degree of closeness of two figures. It shows the effects of one variable on the other. Thus, the correlation is that statistical devices, which help in analyzing the co-variation of two or more variables. In this study the correlation of different financial data relating to profit and RA total deposit and RA etc. have been studied and conclusions have been drawn. Similarly, the projections are also been drawn based on result of the relationship between the data.

### 4.5.1 Correlation between Total Deposits and Total Investment

A banks primary function is to make investment and without its fund it is totally impossible to make such investment either it is loan and advance or investment in any other government securities/shares etc. Here, the total deposit is assumed to be an independent variable whereas the total investment is considered as dependent variable.

The correlation between total deposit and total investment (r) = 
$$\frac{\sum XY}{\sqrt{\sum x^2} \sqrt{\sum y^2}}$$

Here,

X	=	Total deposit
y	=	Total investment
N	=	No. of Observation
r	=	Correlation coefficient

**Table No. 4.22**

#### **P.Er. and 6×P.Er. between Total Deposit to Total Investment**

<b>Correlation Coefficient</b>	<b>P.Er.</b>	<b>6×P.Er.</b>
0.9354	0.0315	0.1893

*Source : Appendix - I*

Hence, from above table we can say that the two variables are change in one variable positively affects the other and vice-versa.

∴ r > 6PE, the calculated value of r is significant and it indicates that the bank's investment depends upon its deposit. So, the bank has to have more and more deposit it has to make investment.

#### 4.5.2 Correlation between Total Deposits and Total Risk Assets

Bank is a financial institution whose primary function is to make investment. The total deposit of the bank includes both interest bearing and non interest bearing accounts. Here, total deposit is assumed to be an independent variable. The risk assets also known as loan and advances include investments made on cash credit, long and short term loan, bills purchase retail lending etc. The total risk assets are assumed to be a dependent variable.

The correlation between total deposits and total risk assets (r) = 
$$\frac{\sum XY}{\sqrt{\sum x^2} \sqrt{\sum y^2}}$$

Here,

- x = Total deposits
- y = Total risk assets
- N = No. of observations
- r = Correlation coefficient

**Table No. 4.23**

**P.Er. and 6×P.Er. between Deposit and Total Risk Assets**

Correlation Coefficient	P.Er.	6×P.Er.
0.9964	0.001403	0.0084

*Source : Appendix - II*

Hence, from above table we can conclude that the two variables are almost perfectly positive collected indicating that the change in one variable positively affects the other and vice-versa.

∴ r > 6 P.E., the calculated value of r is significant and it indicates that the total risk assets depend upon its deposits. So, the bank has to more deposits of it has to make investment on risk assets.

#### 4.5.3 Correlation between NPA and Loan Loss Provision

The bank has to make loan loss provision for its NPA either it is pass. Sub standard, doubtful or loss the NPA companies of those loans that are not paid (interest as well as principle as stipulated by the bank) for three to 12 month and for that all above mentioned loans, the bank has to make provision to cover these loans from there profit as per the NRB rules. Thus, NPA is considered independent while loan loss provision is assumed to be dependent variable.

The correlation between total loan loss provision to total risk assets (r) =  $\frac{\sum XY}{\sqrt{\sum x^2} \sqrt{\sum y^2}}$

Here,

- x = Loan loss provisions
- y = Total NPA
- N = No. of observations
- r = Correlation coefficient

**Table No. 4.24**

**P.Er. and 6×P.Er. between NPA and Loans Loss Provision**

Correlation Coefficient	P.Er.	6×P.Er.
0.6690	0.1407	0.8442

Source : Appendix - III

Hence, from above table we can conclude that the two variables have less relation is positively correlated indicating that the change in one variable positively affects the other and vice versa.

∴ r < 6 P.E., the calculated value of r is significant and it indicates that the bank's loan loss provision has no such relation to NPA.

**4.5.4 Correlation between Interest Income and Total Risk Assets**

The major income of the bank comes from the interest earned on its total lending. If the bank is able to make high investments in its risk assets, then the possibility of the bank to earn more interest income is certain if its loan are good and the borrowers pay their interest with in the time period. So, interest is depends of risk assets.

The correlation between interest income to risk assets (r) =  $\frac{\sum XY}{\sqrt{\sum x^2} \sqrt{\sum y^2}}$

Here,

- x = Interest income
- y = Total risk assets
- N = No. of observation
- r = Correlation coefficient

**Table No. 4.25**

**P.Er. and 6×P.Er. between Interest income and Risk and Assets**

<b>Correlation Coefficient</b>	<b>P.Er.</b>	<b>6×P.Er.</b>
0.9413	0.012569	0.07542

*Source : Appendix - IV*

Hence, from above table we can conclude that the two variables are highly positive correlated indicating that higher the investment in RA higher will be the interest income and vice versa.

∴  $r < 6$  P.E., the calculated value of  $r$  is significant and it indicates that the bank comes from interest, which depends upon the investments made on the RA. So, in order to have more earning the bank has to have more and more investment in RA.

**4.5.5 Correlation between Net Worth and Net Profit**

The net worth or shareholders equity includes paid up share capital, share premium and reserves and surplus less accumulated loss. The shareholders always want more return on their investments. This is possible if the firms earn high profit and the profit is only possible if the bank is able to cut its expenses and have enough investment. Here, the net worth is a dependable variable while the net profit is undependable variable.

The correlation between net work and net profit ( $r$ ) = 
$$\frac{\sum XY}{\sqrt{\sum x^2} \sqrt{\sum y^2}}$$

Here,

- x = Net worth
- y = Net profit
- N = No. of observation
- r = Correlation coefficient

**Table No. 4.26**

**P.Er. and 6×P.Er. between Net Worth and Net Profit**

<b>Correlation Coefficient</b>	<b>P.Er.</b>	<b>6×P.Er.</b>
0.7040	0.1286	0.7715

*Source : Appendix - V*

Hence, from above calculation, we can conclude that the two variables are positively correlated indicating that the change in one variable positive affects the other and vice versa.

∴  $r < 6$  P.E., the calculated value of  $r$  is not significant and it indicates that the bank's net worth does not depend upon its NPAT.

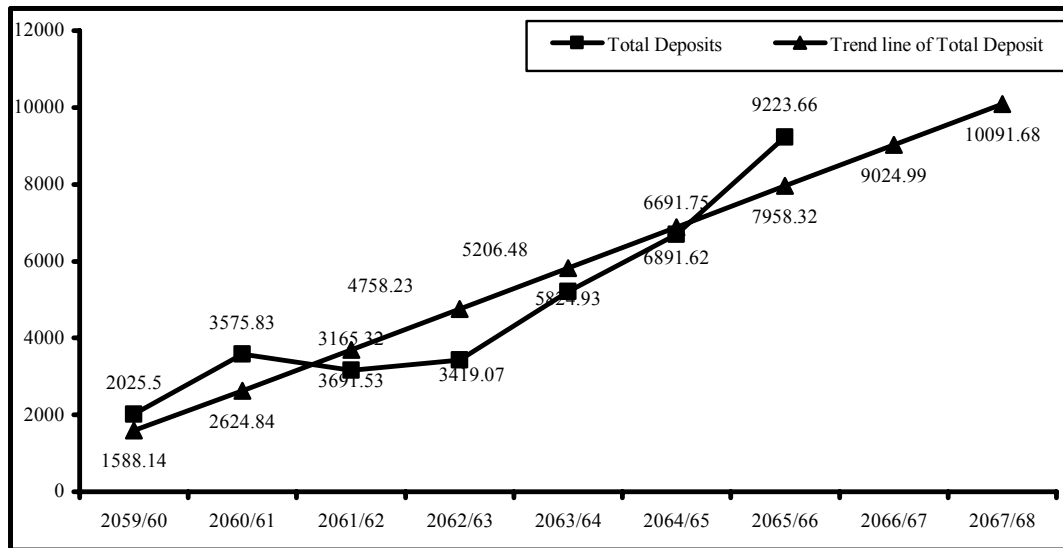
## **4.6 Trend Analysis**

Trend Analysis is another tool used in the course of financial analysis. In financial analysis the direction of change over a period of time is of crucial importance. It is a statistical measure, which shows the changes, or a group related variables with respect to time, geographical location or other characteristics. In order to carry out this research work, the trend analysis in respect to time is taken and for that seven year period is taken i.e. from FY 2059/60 to FY 2065/66. The trend analysis of different data relating to deposits, total investments, risk assets, NPA, loan loss provisions and interest income are taken to study the performance of the bank and similarly the conclusions and projections are drawn.

### **4.6.1 Calculation of Trend Value of Total Deposits**

From the below figure the total deposit curve had increased during FY 2059/60 and FY 2060/61 then had gone down during FY 2061/62 and 2062/63. Thereafter, it has gone upward indicating that the total deposits of the bank have been increased again. During the FY 2061/62 deposits (both interest bearing and non-bearing) have gone down due to which it resulted in downward slope in that year. However, the curve has started to climb upwards thus indicating the growth in deposits. The bank should have low cost deposits and if possible it has to have deposits in current account and margin accounts as these are non interest bearing accounts, which lowers the interest expenses of the bank.

**Figure No. 4.1**  
**Trend Analysis of Total Deposits**



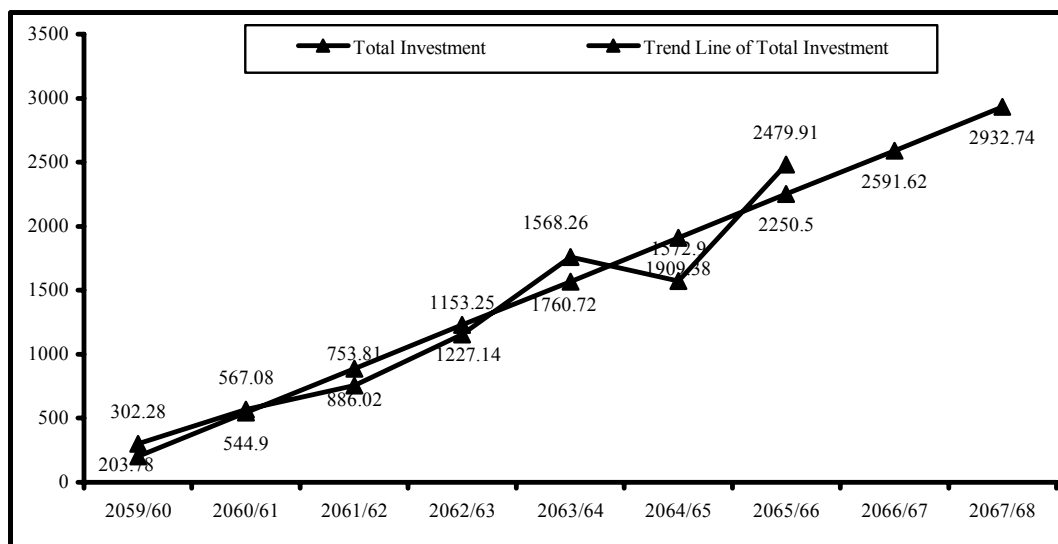
Source : Appendix - VI

The total deposits comprises of short-term deposits, call deposits, margin deposits etc. which are considered as the liabilities of the bank. The bank has to increase its funds and it is rather impossible for the management to have deposits without any expenses. But as far as possible the bank has to maintain the non-interest bearing deposits as this lowers the interest expenses. If the same trend of deposit continues in next two years, the total deposit will increase and remain to 10991.68 million in FY 2067/68, as shown by the trend line of deposits.

#### **4.6.2 Calculation of Trend Value of Total Investment**

From the figure below 4.2, the total investment had gone upward between FY2059/60 and FY 2063/64. This is because the bank made its lending policy tight and unaggressive during initial years of its establishment so as to be choosy in terms of lending business resulting into increasing investment in government bills which are risk free. The investment line in below chart shows it. The line has been continuously increasing except in FY 2064/65.

**Figure No. 4.2**  
**Trend Analysis of Total Investment**



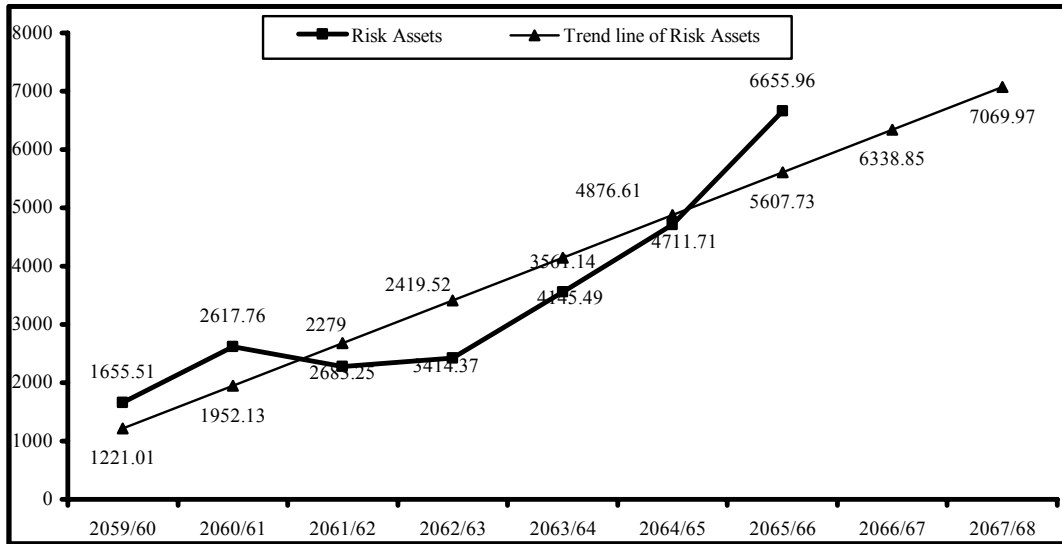
Source : Appendix - VII

The bank is able to earn higher profit only when it makes investments and this is only possible after it starts to make investments in risk assets. Being risk free, bank management has decided to give proper weight for such investment as a result the investment is expected to increase in coming two years, as depicted by trend analysis in the chart.

#### **4.6.3 Calculation of Trend Value of Risk Assets**

From the below figure 4.3, the risk assets had moved upward during FY 2059/60 due to aggressive lending. This is because the bank made its lending flexible and aggressive during initial years of its establishment so as to retain the business from the market. Then after, the management of the bank started to sort out the total loan portfolio and started to make investment in loans and advances. But, then after it started making its investments carefully and this it started focusing more or less risky investments due to which both the lines lowered till FY 2061/62. Despite the competition between the banks, the bank is able to sizeable growth in both interest incomes and risk assets and thus the lines have started to move upward indicating the effective use of sources by the management.

**Figure No. 4.3**  
**Trend Analyses of Risk Assets**



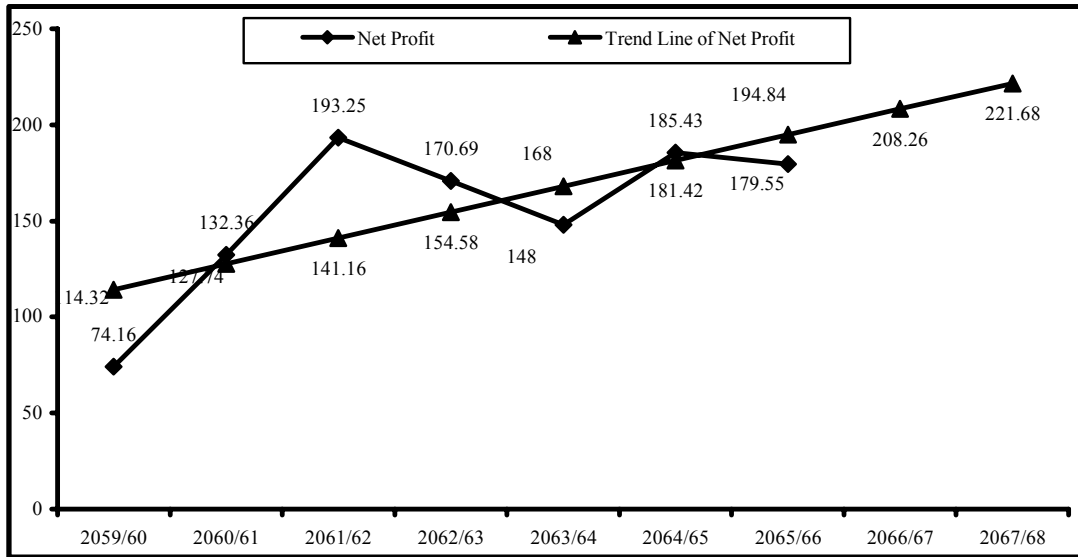
Source : Appendix - VIII

The interest income depends on the total assets of a bank because the bank charges interest to its borrowers for the lent amount. The risk assets comprise of both short term and long term investments, however, it does not include investments on government securities and shares of other firms and company. Thus, the bank has to increase its risk assets so as to earn higher interest income. The continuing investment towards loans and advances has been made it is expected that loans and advances will escalate further and projected to be at 7069.97 millions.

#### 4.6.4 Calculation of Trend Value of Net Profit

From the figure below 4.4, the net profit had gone upward for continuously for three years i.e. FY 2059/60, FY 2060/61 and FY 2062/63 due to significantly increase in risk assets. In next two fiscal year the profit has dramatically decreased. The reason behind this decrease is due to introduction of new rules regarding provision of loans and advances by NRB.

**Figure No. 4.4**  
**Trend Analysis of Net Profit**



Source : Appendix - IX

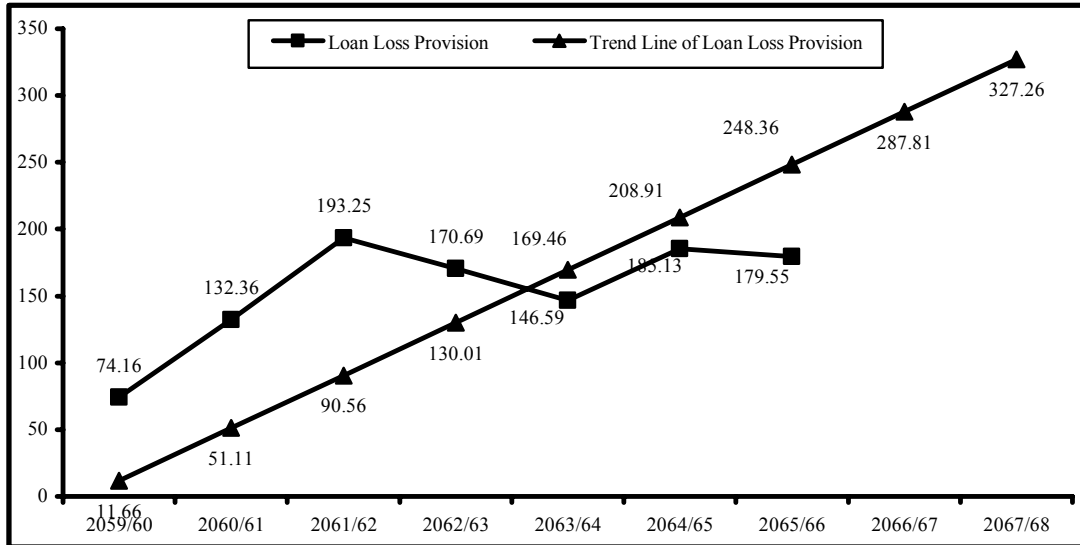
We know that the net profit depends upon the interest income and its total cost. However, the bank is able to earn higher profit only when it makes investment and this is only possible after it starts to make investments in risk assets. Thus, net profit is reciprocating to the risk assets of the bank because these risk assets in return earn some interest income to the bank which is the foremost source of the bank. Considering the past trend of net profit the bank should be able to earn net profit in next two years, as execute by trend line of Net Profit.

#### **4.6.5 Calculation of Trend Value of Loan Loss Provisions**

From the figure below 4.5, during its initial years, the loan loss provision had increased slowly with increase in non-performing loans. After the amendment of loan loss provisions on FY 2060/61, both the curves increased rapidly with the increase of loan loss provisions compared to FY 2059/60 because there were no bad loans as all loans were under good and substandard loans in the initial phase. However, these loans converted into doubtful and bad loans in the due course of time and due to poor monitoring of the business of the borrower availing some loans. Though the bank has credit unit to monitor its risk assets portfolio, the credit team was not able to monitor its loan effectively. However, its been able to recover its bad loans to some extent and is also able to

reschedule the loans as per the NRB rules, the NPA has started decreasing but the total loan loss provision has increased which is because of 1% provisioning in the pass category loan, which hold major part of the risk assets. In FY 2063/64, NPA seems increasing whereas loan loss provision moves inversely.

**Figure No. 4.5**  
**Trend Analysis of Loan Loss Provisions**



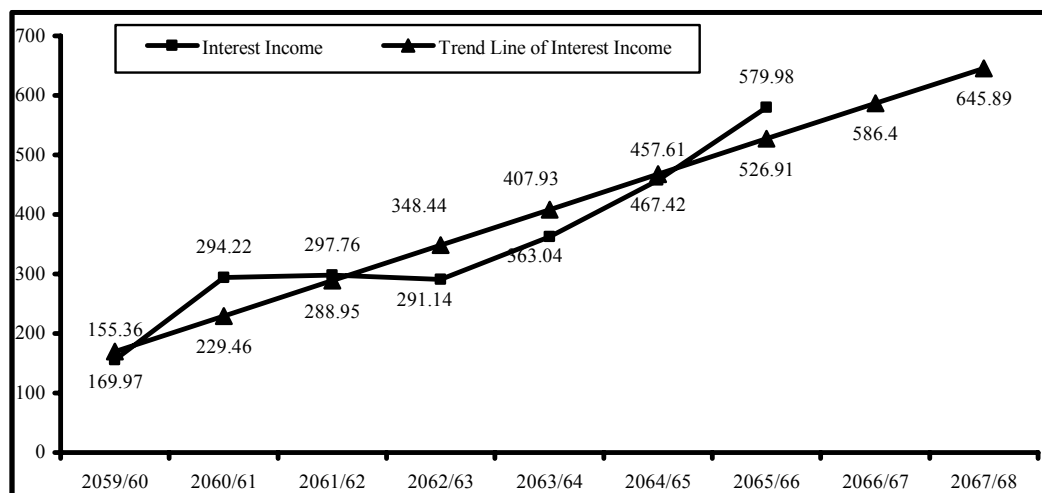
Source : Appendix - X

The non-performing loans consist of sub-standard, doubtful & bad loans and the bank has to make loan loss provisions as per the NRB regulations i.e. 25 percent, 50 percent and 100 percent respectively for each of these loans. However, the bank has to make 1 percent provision for its pass loans as well. Thus, the bank should monitor its risk assets so that its loan loss provisions shall be low to the possible extent. Continuing with the trend it is expected that Loan Loss Provisions will increase but in decreasing rate due to sound credit management in coming years.

#### **4.6.6 Calculation of Trend Value of Interest Income**

From the figure below 4.6, the interest income has increased for the two fiscal years FY 2059/60 and FY 2060/61. Then in the following fiscal year FY 2061/62 and FY 2061/62 the interest income has been decreased due to non collection of interest in some loan accounts. Then after interest income has been increasing steadily due to collection of some unrealized interest in previous years and increase in loan size.

**Figure No. 4.6**  
**Trend Analysis of Interest Income**



Source : Appendix - XI

The interest income depends on the total assets of a bank because the bank charges interest to its borrowers for the lent amount. The risk assets comprise of both short term and long term investments, however, it does not include investments on government securities. Thus, the bank has to increase its risk assets so as to earn higher interest income though should made proper analysis of risk while granting loans and advances. Considering the past trend line of interest income it can be assumed that interest income will increase in next two years.

## 4.7 Primary Data Analysis

**Table No. 4.27**

### **Frequency of Respondents of Credit Customers of NIC Bank**

Particulars	Yes		No		Not Clear		Total
	No	%	No	%	No	%	
(i) Are you satisfied with the bank?	5	50	5	50	-	-	10
(ii) Does any bank officer visit your project site at the time of granting credit?	7	70	1	10	2	20	10
(iii) Do you know all information about bank policies?	7	70	3	30	-	-	10
(iv) Are you satisfied with the bank interest rate?	4	40	6	60	-	-	10
(v) Do you want to take further credit from the bank?	8	80	1	10	1	10	10
(vi) Have you received any notice before credit expiration data?	7	70	1	10	2	20	10
(vii) Do you feel that you have got full operation from bank officer?	7	70	3	30	-	-	10
(viii) Is the service charge taken by the bank satisfactory?	5	50	3	30	2	20	10
(ix) Have you utilize the entire loan to the same sector as specified at the time of taking loan?							
(x) Are you thinking to switch the bank in the future?	1	10	9	90	-	-	10

- 50 percent sample customer of the bank told that they were satisfied with the bank and the remaining 50 percent said no.
- 70 percent of the sample customer said bank officer visited their project site at the time of granting credit one customer said no and remaining two customers are were unknown about the bank officer visit.
- 7 out of 10 customer said they were upto date with the banking polices.

- Six customers out of ten customers were unsatisfied with the bank interest rate. Four customers were satisfied with the bank interest rate.
- Eight out of 10 customers respondents that they would take credit from the same bank in the near future 1 said no, and the remaining one customer did not responded clearly.
- 70 percent of the customers of the bank received notice of repaying credit from the bank, 20 percent customers said, "This is our first time".
- 7 out of 10 customers were satisfied with the bank officers cooperation, 3 customers were unsatisfied.
- Services charge taken at the time of issuing credit is high from the view point of 50 percent customers. 30 percent customers said they were more or les satisfied with the service charges. 20 percent customers were unaware of the service charge.
- 80 percent of the sample customers said they utilized the credit for the same sector as specified at the time of taking credit one customer did not response clearly. One customer (10 percent) said he had not utilize all the credit as purpose.
- Only one out of ten responded clearly that he would change the bank next time. Nine customers said they would attach with the bank.

**Table No. 4.28**

**Analysis of Responses to Questionnaire by Employees of Bank (No. of responses=10)**

<b>Particulars</b>	<b>Yes</b>	<b>No</b>
(i) Are you satisfied with the bank?	5	5
(ii) Is there customer related problem in the bank?	10	-
(iii) Is there NRB related problem in the bank?	9	1
(iv) Is there credit policy related problem in the bank?	10	-
(v) Do you know about interest rate on credit?	6	4
(vi) Do you see any changes needed in the process of recovering loan?	8	2
(vii) Is you satisfied with the incentive offered by the bank to employees?	7	3
(viii) Is your organization obeying NRB Directives sincerely?	10	-
(ix) If you get opportunity would you like to switch the bank for the same post?	10	-
(x) Are you satisfied with the promotion policy of the bank?	5	5

- Five employees are satisfied and five employees are dissatisfied with the working institution. Quality of work life leave facilities, automation were the main causes of their satisfaction. Dissatisfied employee said the overload of the work as the main cause of dissatisfaction.
- To out of 10 employees said they should face the customer related problem.
- I employees said there is NRB related problem in the bank whereas 1 employees said no.
- All of them said there is credit related problem in the bank.
- 60 percent (6 out of 10) employees know the interest rate of credit of the bank 40 percent (4 out of 10) employees do not know the interest rate of credit of the bank.
- 8 out of 10 employees of the bank said there is necessary to change in the process of recovering loan. Lengthy and weak legal process of recovery is the main cause of the problem.
- 7 employees out of 10 say that they are satisfied with the incentive in the bank. 3 employees are dissatisfied with the incentive provide by the bank. Newly appointed employees are more satisfied than the old one.
- All respondents are agreed about that their bank is obeying the 'NRB' rules and directives sincerely.
- All sample employees answered that they will shift the bank if and only, if, they are get the chance to go to high public image and more facilities providing bank.
- 50 percent are satisfied and fifty percentages 5 are dissatisfied with the bank.

The major findings of the study are as follows:

- The bank has been able to maintain satisfactory portfolio management and credit policies to monitor its risk assets. Similarly, the bank is able to meet all the NRB regulations as per the rules set by NRB.
- The liquidity ratios are not as per the standard level of 2:1, however the CR of the bank is still enough to meet its current liabilities.
- The ratio of NPAT to RA is increasing since FY 2060/61 and is considered satisfactory, as the increase in NPAT is the other main target of the bank. However, the NPAT has decreased in FY 2064/65.
- The EPS of the bank decreased during FY 2060/61, because of the reduction in NPAT. But then it started increasing after FY 2061/62. In fact, the EPS in FY

2064/65 has increased at diminishing rate due to issue of Bonus shares in the same year.

- The P/E ratio has not been satisfactory because of the reduction in MVPS, which has made the management aware of its share price.
- Despite the tough competition, the bank is able to maintain continuous growth in its interest earning till FY 2061/62 but has decreased in the following fiscal years due to NPA.
- The proportion of shareholders' equity in risk assets has been decreasing indicating that the bank has been utilizing the other sources of funds for the investments.
- The ratio of loan loss provision to total loan and advance has been increasing indicating the reason is more risky assets into the volume of loan and advance.
- Correlation coefficient between total deposit and risk assets is 0.9964 it indicates high degree of position relationship between deposit and risk assets loan.
- The trend analysis of interest expenses and total deposits & borrowings showed that the interest expenses increased simultaneously with the increase in deposits and borrowings.
- The portfolio management of the bank can be considered satisfactory as it is monitored by TF and also has different committees to monitor on the assets and liabilities of the bank. The committee includes ALCO and MANCOM that meet each month and discusses on various business and strategic issues of the bank.
- From primary data analysis 50 percent of customer satisfied with the bank also most of customer upto date with the banking policy.
- From the responses of employees of bank 50 percent employees are satisfied with bank. All the employees accept the credit policy related problem in the bank.

## **CHAPTER - V**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Summary**

Bank is a financial institution, which deals on money. It collects money from different sectors, which are idle and scattered in our surroundings. It issues these deposits as a loan to those who need it. Those depositors can be individual or institutions. Duration of deposits depends upon the mutual agreement between bank and customer. Similarly, borrower of money can be individual as well as business firms or institutions. Terms and condition of depositing money and lending money depend on various factors like duration, volume or amount, purpose etc. For example bank provides high rate interest on long-term deposits. It allows some interests on deposits and charges some interest on loan. Interest on loan is comparatively higher than deposits. The difference in interest of deposits and loan is called spread rate and this is the main source of earning of a bank.

Commercial banks play an important role in affairs of the economy in various ways. The operations of commercial banks record the economic pulse of the economy. The size and composition of their transactions mirror the economic happening in their country. They are as essential instrument of accelerated growth in a developing economy. In fact, banks are the nerve center of economy and the barometer of economic prosperity. By mobilizing community savings and diverting them into productive channels, commercial banks expand the tempo and appreciate the value of aggregate economic activity in the economy. In general banks are those financial institutions that offer the widest range of financial services especially credit, savings and payment services and perform the widest range of financial functions of any business firm in the economy

The financial system is the channel through which mobilization and allocation of savings is carried out in the economy. As such the financial system facilitates the transfer of financial resources from savers to borrowers. The financial system constitutes financial institutions, instruments and market as its component. The Nepalese financial system is small, but rapidly changing. Today in developing economies, regional balance or reduction in regional disparities with regard to the levels and the rate of development amongst the different regions has along been one of the principal objectives of planned

economic development. In this objective, commercial bank can play a very vital role. Banking helps to mobilize the small savings collectively to the huge capital investment. Though the banking is considered as the platform of money market and capital markets, commercial banks basically help to promote money market.

After initial capitalization, a bank has three major sources of funds for its business operations: deposits purchased or borrowed funds, and capital increases. Within these three basic categories are many funding instruments whose maturities, costs, and applications in liability management vary? Liability management, in its broadest sense, is the co-ordination and control of all of a bank's sources of funds so that funds are available or obtainable as needed at reasonable cost. Effective liability management ensures that funds are available to meet reserve requirements and provide adequate liquidity over the short term, and to satisfy loan demand and provide investment earnings over the long term.

Apart from the resource mobilization and collection of sources of funds, the banks should have good credit policy to monitor its loan portfolio, analyze & analyze the loan process and handle the credit operations so that the investments made provide them smooth return and get the return even if the business fails in future. Thus, though each bank has its own credit policies, the management should be aware that the credit policies should be mandatory and followed strictly with compliance by the staffs within.

This study has been carried out to find out with a view to analyze the credit management of NIC Bank Ltd studying the credit polices and portfolio management of the bank. There are five chapters in this study viz: Introduction, Review of Literature, Research Methodology, Data Presentation & Analysis and Summary, Major Findings & Recommendation.

The first chapter deals with the general background focus of the study, statement of the problem, objective of the study, significance of the study and limitations of the study.

In the second chapter, the relevant and pertinent literature on the subject is reviewed with a view to understand the functions and business of banking, number of commercial banks, the role of central bank, present scenario of the banking sector, credit management and its need in the bank and the introduction of NIC Bank Ltd and its credit management.

The third chapter explains about the research methodology, that explains how the about the research analyzing process was carried out. This chapter includes research design, population and sample, nature & sources of data, data collection techniques, data analysis tools and limitations of the methodology.

The fourth chapter deals with the presentation of data and analysis by using various financial and statistical tools. Various tables and graphs are used in this chapter so that presentations can be made easy to understand. Besides, it also includes the descriptive analysis of credit policies of the bank.

The last chapter is the summary, major findings and recommendation of the study. It presents the summary, conclusion by point and has made recommendations so that the higher management considers it as valuable tips in making certain changes in the portfolio management and credit policies of the bank.

## **5.2 Conclusion**

Earlier the financial strength of the bank was pretty comfortable but on later years the financial strength has deteriorate but not on alarming situation. This possible reason could be due to increasing competition. Particularly the bank should needs to be focused on liquidity position. The bank needs to continuously update/upgrade its all credit policy, guidelines, risk mitigation technique etc. The NPA level is still under manageable situation. However, it needs to ascertain the same should be under manageable position as always.

In conclusion the major findings of the study are as follows

- The bank has been able to maintain satisfactory portfolio management and credit policies to monitor its risk assets. Similarly, the bank is able to meet all the NRB regulations as per the rules set by NRB.
- The liquidity ratios are not as per the standard level of 2:1, however the CR of the bank is still enough to meet its current liabilities.
- The ratio of cash and bank balance is in fluctuating trend indicating the variable percentage of cash and bank balance in CA.

- The percentage of FD to TD is in decreasing trend up to FY 2062/63, which indicates reduction in interest expenses in fixed deposits. But in two successive fiscal years, the ratio remains constant at 46.66%. During these two fiscal years, FD has increased with the increase in interest rate as compared to preceding fiscal years.
- The ratio of savings deposits to TD is increasing which can be considered satisfactory because of lower cost deposits compared to fix and call deposits.
- The ratio of total RA to CA has started to increase thus indicating the increment in investments in RA, which is the ultimate source of interest earning and the goal of the management.
- The ratio of NPAT to RA is increasing since FY 2060/61 and is considered satisfactory, as the increase in NPAT is the other main target of the bank. However, the NPAT has decreased in FY 2064/65.
- The ratio of NPAT to NW is also in increasing trend is considered satisfactory as its adds value to the wealth maximization of the shareholder. However, the ROE has decreased due to issue of Bonus shares in FY 2064/65.
- The EPS of the bank decreased during FY 2060/61, because of the reduction in NPAT. But then it started increasing after FY 2061/62. In fact, the EPS in FY 2064/65 has increased at diminishing rate due to issue of Bonus shares in the same year.
- The P/E ratio has not been satisfactory because of the reduction in MVPS, which has made the management aware of its share price.
- The ratio of NPAT to TA has been fluctuating over seven years. Thus, the bank should be cut off its unnecessary operating expenses and other general expenses so as to increase the NPAT.
- Despite the tough competition, the bank is able to maintain continuous growth in its interest earning till FY 2061/62 but has decreased in the following fiscal years due to NPA.
- The investments depend on total deposits because without its sources of funds the bank is unable to make the investments in RA. The ratio has been fluctuating with 0.08 coefficient of range. The greater proportion of TD has been employed to RA which can be signified by the ratio observed in FY 2063/64 and FY 2064/65.

- The ratio of RA to savings, fixed and call & short deposits is decreasing from FY 2058/59 as it indicates that the management is unable to utilize its sources effectively. However, the bank is able to maintain the ratio at the level of 0.82 on average. The ratios in the FY 2063/64 and FY 2064/65 are both nearer to its average.
- The ratio of staff costs to total costs has decreased during FY 2059/60 and FY 2060/61 while it has increased during next three years. However, in FY 2064/65 the staff costs have decreased along with staff bonus due to heavy loan loss provisions in the same year.
- The ratio of total costs to gross income had increased during FY 2060/61 but then it started to decrease continuously.
- The proportion of shareholders' equity in risk assets has been decreasing indicating that the bank has been utilizing the other sources of funds for the investments.
- The ratio of Loan & advance to Total deposit has been indicating the bank reduce to utilize deposit in loan & advance.
- The ratio of loan & advance to Total asset of NIC bank is not so good in asset management.
- The ratio of total investment to total assets shows the processing path in every year.
- The main proportion of non-performing loan to total loan and advance is 0.058.
- The ratio of loan loss provision to total loan and advance is in increasing trend except FY 2063/064 and 2064/065.
- Similarly, the correlations between TD and TI, TD and TRA, NPA and LLP, Interest Income and RA, and NW and NP were positively correlated.
- Further, the Correlation is greater than 6 times of P.E. in all the cases except in the correlation between NPAT and Net Worth, indicating that all the correlated data were significantly having positive correlation.
- The trend analysis between TRA & TD showed that the RA is dependent on TD.
- The trend analysis of interest expenses and total deposits & borrowings showed that the interest expenses increased simultaneously with the increase in deposits and borrowings.

- The trend analysis of net profit and RA concluded that they were positively correlated and that they two move simultaneously.
- However, though the NPA of the bank has decreased, the loan loss provision increased because of the increase in risk assets and the provisioning even in the pass categories loans.
- The portfolio management of the bank can be considered satisfactory as it is monitored by TF and also has different committees to monitor on the assets and liabilities of the bank. The committee includes ALCO and MANCOM that meet each month and discusses on various business and strategic issues of the bank.
- The credit policy of the bank is monitored by the central credit in the country level and credit departments in the branch level. The staffs of credit department are highly qualified and motivated towards their work.
- Besides, there is an audit committee and accounts department to monitor the documentation and reporting works of NICBL, which has effectively doing their works till date.

### **5.3 Recommendations**

Though the credit management of the bank is satisfactory, there are certain regions where the management has to make necessary steps to overcome such difficulties. Thus, following recommendations are offered by the study:

#### **Update the Latest Technology :**

The business market of Nepal is small and almost saturated. Most of the commercial banks are making investments aggressively with lower interests. In the present context, the possibility of foreign banks to enter in Nepal in these days is high. The management of the bank therefore should update themselves with the latest technologies and also be ready to make necessary changes to overcome difficulties regarding technologies, credit policies, efficient customer service etc. in coming days.

#### **Develop the Qualification of Employees :**

In order to be more competitive, the bank should always be prompt and reliable service to provide for the customers. Similarly, they should have qualified and trained staffs. Though the staffs are trained on regular basis however, only few staffs get the opportunity for such trainings. The bank therefore should conduct in house training on monthly or quarterly basis as possible so as to train the staffs at every level and make them understand each and every rules set by the management and NRB.

### **Follow the Effective Strategies in Loan Management :**

Though the net profit of the bank has been increasing, the bank can still earn more with effective marketing strategies and new loan schemes.

The bank has recently launch home loans with new interest rates and at present market, it is the lowest rate provided to the customers. With such schemes, it is expected that the risk assets of the bank shall rise in coming years. Similarly, it is expected that the bank shall launch such retail services to its customers with innovative schemes so that it can increase its market share.

Like every commercial bank, the main goal of the management is to earn higher profit and for that the management should make investments in risk assets and similarly lower its operating and other expenses.

### **Analysis in Interested Rate :**

Although the total deposits of the bank have been increasing every year, it still has high cost deposits. The bank provides 5 percent interest on NLS scheme, which is one of the highest interest rates in savings account and similarly provides higher interest in fixed and call deposits compared to other commercial banks. Therefore, if possible the bank should make continuous efforts to have low cost deposits.

In order to hold better position in the financial market, the bank should provide dividends to its shareholders and it is possible only if it makes higher profit. Thus the management should be aware of EPS and MVPS and should make necessary steps to increase the value of EPS and MVPS as they are considered to be the rationale indicator of credit management of the bank.

### **Strategy of Recovery Loan :**

Apart from above, the credit management should be aware of its NPA and should monitor such loans carefully. Further, it should take necessary steps to recover its bad loans and if possible reschedule such loans so that the borrowers can repay it on time.

### **Facilities of Bank :**

The bank has launched ABBS, ATM and Debit card facilities for its customers in order to provide better service.

**Circulate of Policies :**

The management should circulate internal credit policies and NRB credit policies to all the branches timely so that the staffs are updated about such rules and regulations.

**Processing of Loan Approval :**

As far as routing the proposals are concerned, the central credit has been monitoring the total loan proposals sent from all branches, which is ultimately approved by CEO or board committee where needed. If possible the management should provide credit approval discretions to all credit management staffs including HBB, MCBB, MCCB and all branch managers so that the credit decisions are made promptly within their responsibility.

**Mortgage Policy :**

The CSU unit mostly forwards the mortgaged deed of every borrower to the legal advisor at Corporate Office, which takes about 3 to 4 days time to get it approved after necessary corrections. If the management is able to place a standard format of mortgage deed for every kind of loans, then it would be easy for CSU to execute the legal documents to the customers.

**Rules of Cash Reserve Rate :**

As far as fund management is concerned, the bank has to maintain CRR of 5.5% from Sunday to Friday as per the new NRB rule. Thus, the bank has to maintain enough liquidity within the branches and therefore has to focus in increasing the deposits.

**Form of Loan Service :**

The treasury department should be able to maintain enough bank balances on its NOSTRO accounts both in local as well as foreign currencies such that no problem arises regarding the remittance and payments of LCs.

**Standard of Credit Document :**

There are no such standard credit documents set by the bank for its borrowers. Mostly, CSU prepares similar kind of documents whether it is small size loans or corporate credit loans. Thus, the central credit should prepare standard formats for each kind of loan.

**Responsibility of Board of Directors :**

Although the board of directors and senior management bear the ultimate responsibility for an effective system of credit risk management, supervisors should, as part of their ongoing supervisory activities, assess the system in place at individual banks to identify, measure, monitor and control credit risk.

**Responsibility of Supervisor :**

Supervisors should review the results of any independent internal reviews of the credit-granting and credit administration functions and further should make use of any reviews conducted by the bank's external auditors, where available.

Supervisors should also take particular note of whether bank management recognizes problem credit at an early stage and take the appropriate actions.

Supervisors should monitor trends within a bank's overall credit portfolio and discuss with senior management any marked deterioration. They should also assess whether the capital of the bank, in addition to its provisions and reserves, is adequate related to the level of credit risk inherent in the bank's various on and off balance sheet activities.

**Find New Area of Investment :**

Lastly, the bank should focus on retail banking though it has recently launched new home loan schemes. In coming days, the bank has to introduce new loans in retail lending, like education loans, auto loans, travel loans and other small size loans. Because it leads to less risky investments on one hand and on the other the risk assets increases leading to profit increase of the bank due to lower loan loss provisions and operating expenses. However, the bank should also venture new corporate loans and if possible should open new branches at other business market of the country.

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## APPENDIX - I

### Correlation between the Deposit and Total Investments

(NPR in Million)

FY	Total Deposit (X)	Total Investment (Y)	$x=X-\bar{X}$	$x^2$	$y=Y-\bar{Y}$	$y^2$	xy
2059/60	2025.5	302.28	-2555.18	6528944.83	-924.86	855366.02	2363183.77
2060/61	3575.83	567.08	-1004.85	1009723.52	-660.06	435679.20	663261.29
2061/62	3165.32	753.81	-1415.36	2003243.93	-473.33	224041.29	669932.35
2062/63	3144.32	1153.25	-1436.36	2063130.05	-73.89	5459.73	106132.64
2063/64	5146.46	1760.72	565.78	320107.01	533.58	284707.62	301888.89
2064/65	6241.38	1572.9	1660.70	2757924.49	345.76	119549.98	574203.63
2065/66	8765.95	2479.91	4185.27	17516484.97	1252.77	1569432.67	5243180.70
	32064.76	8589.95		32199558.81		3494236.51	9921783.28

$$\bar{X} = \frac{\sum X}{N} = \frac{32064.76}{7} = 4580.68$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{8589.95}{7} = 1227.14$$

$$r = \frac{\sum XY}{\sqrt{\sum x^2} \sqrt{\sum y^2}}$$

$$= \frac{9921783.28}{\sqrt{32199558.81} \sqrt{3494236.51}}$$

$$= 0.9354$$

Hence, from above calculation, we can conclude that the two variable that the change in one variable positively affects the other and vice-versa.

$$\text{Similar, probable error (P.E.)} = 0.6745 \times \frac{1-r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1-(0.9361)^2}{\sqrt{7}}$$

$$= 0.0315$$

$$\therefore 6 \times \text{PE} = 6 \times 0.0315$$

$$= 0.1893$$

## APPENDIX - II

### Correlation between the Deposit and Total Risk Assets

(NPR in Million)

FY	Total Deposit (X)	Total Risk Assets (Y)	$x=X-\bar{X}$	$x^2$	$y=Y-\bar{Y}$	$y^2$	$xy$
2059/60	2025.5	1655.51	-2555.18	6528944.83	-1758.86	3093588.50	4494203.89
2060/61	3575.83	2617.76	-1004.85	1009723.52	-796.61	634587.49	800473.56
2061/62	3165.32	2279	-1415.36	2003243.93	-1135.37	1289065.04	1606957.28
2062/63	3144.32	2419.52	-1436.36	2063130.05	-994.85	989726.52	1428962.75
2063/64	5146.46	3561.14	565.78	320107.01	146.77	21541.43	83039.53
2064/65	6241.38	4711.71	1660.70	2757924.49	1297.34	1683091.08	2154492.54
2065/66	8765.95	6655.96	4185.27	17516484.97	3241.59	10507905.73	13566929.38
	32064.76	23900.60		32199558.81		18219505.79	24135058.93

$$\bar{X} = \frac{\sum X}{N} = \frac{32064.76}{7} = 4580.68$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{23900.60}{7} = 3414.37$$

$$r = \frac{\sum XY}{\sqrt{\sum x^2} \sqrt{\sum y^2}}$$

$$= \frac{24135058.93}{\sqrt{32199558.81} \sqrt{18219505.79}}$$

$$= 0.9964$$

Hence, from above calculation, we can conclude that the two variables are almost perfectly positive collected indicating that the change in one variable positively affects the other and vice-versa.

$$\text{Similarly, probable error (P.E.)} = 0.6745 \times \frac{1-r^2}{\sqrt{N}}$$

$$= 0.001403$$

$$\therefore 6PE = 6 \times 0.001403$$

$$= 0.0084$$

### APPENDIX - III

#### Correlation between the NPA and Loan Loss Provision

(NPR in Million)

FY	Loan Loss Pro. (X)	Total NPA (Y)	x = X - $\bar{X}$	$x^2$	y = Y - $\bar{Y}$	$y^2$	xy
2059/60	18.82	74.16	-111.19	12363.22	-80.40	6464.16	8939.68
2060/61	32.34	132.25	-97.67	9539.43	-22.31	497.74	2179.02
2061/62	89.85	193.25	-40.16	1612.83	38.69	1496.92	-1553.79
2062/63	143.34	170.69	13.33	177.69	16.13	260.18	215.01
2063/64	181.95	146.59	51.94	2697.76	-7.97	63.52	-413.96
2064/65	197.64	185.43	67.63	4573.82	30.87	952.96	2087.74
2065/66	246.16	179.55	116.15	13490.82	24.99	624.50	2902.59
	<b>910.10</b>	<b>1081.92</b>		<b>44455.56</b>		<b>10359.97</b>	<b>14356.28</b>

$$\bar{X} = \frac{\sum X}{N} = \frac{910.10}{7} = 130.01$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{1081.92}{7} = 154.56$$

$$r = \frac{\sum XY}{\sqrt{\sum x^2} \sqrt{\sum y^2}} = 0.6690$$

Hence, from above calculation, we can conclude that the two variable has less relation are positively correlated indicating that the change in one variable positively affects the other and vice versa.

$$\begin{aligned} \text{Similarly, probable error (P.E.)} &= 0.6745 \times \frac{1-r^2}{\sqrt{N}} \\ &= 0.1407 \\ \therefore 6PE &= 6 \times 0.1407 \\ &= 0.8442 \end{aligned}$$

## APPENDIX - IV

### Correlation between the Interest Income and Total Risk Assets

(NPR in Million)

FY	Interest Income (X)	Total Risk Assets (Y)	$x=X-\bar{X}$	$x^2$	$y=Y-\bar{Y}$	$y^2$	$xy$
2059/60	155.36	1655.51	-178.80	31969.44	-1758.86	3093588.50	314484.17
2060/61	294.22	2617.76	-39.94	1595.20	-796.61	634587.49	31816.60
2061/62	297.76	2279	-36.40	1324.96	-1135.37	1289065.04	41327.47
2062/63	291.14	2419.52	-43.02	1850.72	-994.85	989726.52	42798.45
2063/64	263.04	3561.14	-71.12	5058.05	146.77	21541.43	-10438.28
2064/65	457.61	4711.71	123.45	15239.90	1297.34	1683091.08	160156.62
2065/66	579.98	6655.96	245.82	60427.47	3241.59	10507905.73	796847.65
	<b>2339.11</b>	<b>23900.60</b>		<b>117465.75</b>		<b>18219505.79</b>	<b>1376992.68</b>

$$\bar{X} = \frac{\sum X}{N} = \frac{2339.11}{7} = 334.16$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{23900.60}{7} = 3414.37$$

$$r = \frac{\sum XY}{\sqrt{\sum x^2} \sqrt{\sum y^2}} = 0.9413$$

Hence, from above calculation, we can conclude that the two variables are highly positive correlated indicating that higher the investment in RA higher will be the interest income and vice versa.

$$\text{Similarly, probable error (P.E.)} = 0.6745 \times \frac{1-r^2}{\sqrt{N}}$$

$$= 0.012569$$

$$\therefore 6PE = 6 \times 0.012569$$

$$= 0.07542$$

## APPENDIX - V

### Correlation between Net Worth and Net Profit

(NPR in Million)

FY	Net Worth (X)	Net Profit (Y)	$x=X-\bar{X}$	$x^2$	$y=Y-\bar{Y}$	$y^2$	xy
2059/60	511.71	24.30	-55.44	3073.59	-30.56	933.91	1694.25
2060/61	519.13	48.29	-48.02	2305.92	-6.57	43.16	315.49
2061/62	526.09	6.82	-41.06	1685.92	-48.04	2307.84	1972.52
2062/63	552.09	26.06	-15.06	226.80	-28.80	829.44	433.73
2063/64	570.40	68.23	3.25	10.56	13.37	178.76	43.45
2064/65	584.20	113.76	17.05	290.70	58.90	3469.21	1004.25
2065/66	706.46	96.59	139.31	19407.28	41.73	1741.39	5813.41
	<b>3970.08</b>	<b>384.05</b>		<b>27000.78</b>		<b>9503.72</b>	<b>11277.09</b>

$$\bar{X} = \frac{\sum X}{N} = \frac{3970.08}{7} = 567.15$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{384.05}{7} = 54.86$$

$$r = \frac{\sum XY}{\sqrt{\sum x^2} \sqrt{\sum y^2}} = 0.7040$$

Hence, from above calculation, we can conclude that the two variables are positively correlated indicating that the change in one variable positive affects the other and vice versa.

$$\begin{aligned} \text{Similarly, probable error (P.E.)} &= 0.6745 \times \frac{1-r^2}{\sqrt{N}} \\ &= 0.1286 \\ \therefore 6PE &= 6 \times 0.1286 \\ &= 0.7715 \end{aligned}$$

## APPENDIX - VI

### Trend Value of Total Deposits

(NPR in Million)

Year (X)	Total Deposit (Y)	x= X- Middle year	$X^2$	XY	Trend Value $Y_c = a + bx$
2059/60	2025.5	-3	9	-6076.5	1588.14
2060/61	3575.83	-2	4	-7151.66	2624.84
2061/62	3165.32	-1	1	-3165.32	3691.54
2062/63	3419.07	0	0	0	4758.23
2063/64	5206.48	1	1	5206.48	5824.93
2064/65	6691.75	2	4	13383.5	6891.62
2065/66	9223.66	3	9	27670.98	7958.3
	$\sum y = 33307.61$		$\sum x^2 = 28$	$\sum xy = 29867.48$	

$$a = \frac{\sum y}{n} = \frac{33307.61}{7} = 4758.23$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{29867.48}{28} = 1066.69$$

#### Calculation of Trend Line of Total Deposit for the next five years;

$$2066/67 = a + bx = 4758.23 + 1066.69 * 4 = 9024.99$$

$$2067/68 = a + bx = 4758.23 + 1066.69 * 5 = 10091.68$$

$$2068/69 = a + bx = 4758.23 + 1066.69 * 6 = 11158.37$$

$$2069/70 = a + bx = 4758.23 + 1066.69 * 7 = 12225.06$$

$$2070/71 = a + bx = 4758.23 + 1066.69 * 8 = 73026.39$$

## APPENDIX - VII

### Trend Value of Total Investment

(NPR in Million)

Year (X)	Total Investment (Y)	x= X- Middle year	X <sup>2</sup>	XY	Trend Value Yc = a + bx
2059/60	302.28	-3	9	-906.84	203.78
2060/61	567.08	-2	4	-1134.16	544.9
2061/62	753.81	-1	1	-753.81	886.02
2062/63	1153.25	0	0	0	1227.14
2063/64	1760.72	1	1	1760.72	1568.26
2064/65	1572.9	2	4	3145.8	1909.38
2065/66	2479.91	3	9	7439.73	2250.5
	<b>∑y = 8589.95</b>		<b>∑x<sup>2</sup> = 28</b>	<b>∑xy = 9551.44</b>	

$$a = \frac{\sum y}{n} = \frac{8589.95}{7} = 1227.14$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{9551.44}{28} = 341.12$$

#### Calculation of Trend Line of Total Investment for the next five years;

$$2066/067 = a + bx = 1227.14 + 341.12 * 4 = 2591.62$$

$$2067/068 = a + bx = 1227.14 + 341.12 * 5 = 2932.74$$

$$2068/069 = a + bx = 1227.14 + 341.12 * 6 = 3273.86$$

$$2069/070 = a + bx = 1227.14 + 341.12 * 7 = 3614.98$$

$$2070/071 = a + bx = 1227.14 + 341.12 * 8 = 3956.1$$

## APPENDIX - VIII

### Trend Value of Risk Assets

(NPR in Million)

Year (X)	Risk Assets (Y)	x= X- Middle year	X <sup>2</sup>	XY	Trend Value Yc = a + bx
2059/60	1655.51	-3	9	-4966.53	1221.01
2060/61	2617.76	-2	4	-5235.52	1952.13
2061/62	2279.00	-1	1	-2279.00	2683.25
2062/63	2419.52	0	0	0	3414.37
2063/64	3561.14	1	1	3561.14	4145.49
2064/65	4711.17	2	4	9423.42	4876.61
2065/66	6655.96	3	9	19967.88	5607.73
	<b>∑y = 23900.6</b>		<b>∑x<sup>2</sup> = 28</b>	<b>∑xy = 20471.39</b>	

$$a = \frac{\sum y}{n} = \frac{23900.6}{7} = 3414.37$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{20471.39}{28} = 731.12$$

#### Calculation of Trend Line of Risk Assets for the next five years;

$$2066/067 = a + bx = 3414.37 + 731.12 * 4 = 6338.85$$

$$2067/068 = a + bx = 3414.37 + 731.12 * 5 = 7069.97$$

$$2068/069 = a + bx = 3414.37 + 731.12 * 6 = 7801.09$$

$$2069/070 = a + bx = 3414.37 + 731.12 * 7 = 8532.21$$

$$2070/071 = a + bx = 3414.37 + 731.12 * 8 = 9263.33$$

## APPENDIX - IX

### Trend Value of Net Profit

(NPR in million)

Year (X)	Net Profit (Y)	x= X- Middle year	X <sup>2</sup>	XY	Trend Value Yc = a + bx
2059/60	74.16	-3	9	-222.48	114.32
2060/61	132.36	-2	4	-264.72	127.74
2061/62	193.25	-1	1	-193.25	141.16
2062/63	170.69	0	0	0	154.58
2063/64	146.59	1	1	146.59	168.00
2064/65	185.43	2	4	370.86	181.42
2065/66	179.55	3	9	538.65	194.84
	<b>∑y = 1082.03</b>		<b>∑x<sup>2</sup> = 28</b>	<b>∑xy = 375.65</b>	

$$a = \frac{\sum y}{n} = \frac{1082.03}{7} = 154.58$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{375.65}{28} = 13.42$$

#### Calculation of Trend Line of Net Profit for the next five years;

$$\begin{aligned}
 2066/067 &= a + bx = 154.58 + 13.42 * 4 = 208.26 \\
 2067/068 &= a + bx = 154.58 + 13.42 * 5 = 221.68 \\
 2068/069 &= a + bx = 154.58 + 13.42 * 6 = 235.1 \\
 2069/070 &= a + bx = 154.58 + 13.42 * 7 = 248.52 \\
 2070/071 &= a + bx = 154.58 + 13.42 * 8 = 261.94
 \end{aligned}$$

## APPENDIX - X

### Trend Value of Loan Loss Provisions

(NPR in million)

Year (X)	Loan Loss Provisions (Y)	x= X- Middle year	X <sup>2</sup>	XY	Trend Value Yc = a + bx
2059/60	18.82	-3	9	-56.46	11.66
2060/61	32.34	-2	4	-64.68	51.11
2061/62	89.85	-1	1	-89.85	90.56
2062/63	143.34	0	0	0	130.01
2063/64	181.95	1	1	181.95	169.46
2064/65	197.64	2	4	395.28	208.91
2065/66	246.16	3	9	738.48	248.36
	<b>Σy = 910.1</b>		<b>Σx<sup>2</sup> = 28</b>	<b>Σxy = 1104.72</b>	

$$a = \frac{\sum y}{n} = \frac{910.1}{7} = 130.01 \quad b = \frac{\sum xy}{\sum x^2} = \frac{1104.72}{28} = 39.45$$

**Calculation of Trend Line of Loan Loss Provision for the next five years;**

2066/067 =            a + bx =    130.1    + 39.45 \* 4    = 287.9

2067/068 =            a + bx =    130.1    + 39.45 \* 5    = 327.35

2068/069 =            a + bx =    130.1    + 39.45 \* 6    = 366.8

2069/070 =            a + bx =    130.1    + 39.45 \* 7    = 406.25

2070/071 =            a + bx =    130.1    + 39.45 \* 8    = 445.7

## APPENDIX - XI

### Trend Value of Interest Income

(NPR in Million)

Year (X)	Interest Income (Y)	x= X- Middle year	X <sup>2</sup>	XY	Trend Value Yc = a + bx
2059/60	155.36	-3	9	-466.08	169.97
2060/61	294.22	-2	4	-588.44	229.46
2061/62	297.76	-1	1	-297.76	288.95
2062/63	291.14	0	0	0	348.44
2063/64	363.04	1	1	363.04	407.93
2064/65	457.61	2	4	915.22	467.42
2065/66	579.98	3	9	1739.94	526.91
	<b>∑y = 2439.11</b>		<b>∑x<sup>2</sup> = 28</b>	<b>∑xy = 1665.92</b>	

$$a = \frac{\sum y}{n} = \frac{2439.11}{7} = 348.44$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{1665.92}{28} = 59.49$$

#### Calculation of Trend Line of Interest Income for the next five years;

$$\begin{aligned}
 2066/067 &= a + bx = 348.44 + 59.49 * 4 = 586.4 \\
 2067/068 &= a + bx = 348.44 + 59.49 * 5 = 645.89 \\
 2068/069 &= a + bx = 348.44 + 59.49 * 6 = 705.38 \\
 2069/070 &= a + bx = 348.44 + 59.49 * 7 = 764.87 \\
 2070/071 &= a + bx = 348.44 + 59.49 * 8 = 824.36
 \end{aligned}$$



